

GAZETTEER OF INDIA

WEST BENGAL

DARJILING

WEST BENGAL DISTRICT GAZETTEERS



DARJILING

BY

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PREFACE

The Darjiling District Gazetteer, now being presented to the public, has been first under scrutiny by different authorities and then in press, for the last decade. The West Bengal District Gazetteers Unit began to compile it in late 1967 : the first draft was completed in 1969. Shri Amiya Kumar Banerji was then the State Editor and credit for organization of the academic work on this volume is his due.

Shri Banerji sent the draft for scrutiny and comments to Dr. P. N. Chopra, Editor (Gazetteers), Government of India at the Department of Culture, Ministry of Education, New Delhi. It was sent back to this office in 1970 with suggestions for revision of a part of Chapter I, the whole of Chapter II and parts of Chapters III and IV. Relevant changes and some recasting of drafts were made by Shri D. Majumdar, I.A.S., State Editor from 1970 to 1972. The entire set was sent back to Delhi in 1971 and came back with fresh suggestions for changes in Chapter II. Shri A. M. Kusari, I.A.S., State Editor from 1973 to 1974 revised Chapter I and recast Chapter II, and once again sent back the volume to Delhi. Final clearance for publication was received from the Central Gazetteers Unit in 1974, five years after the volume was drafted. Dr. B. K. Bhattacharya, I.A.S., State Editor from 1975 to 1976 sent the entire material to press on 29th March 1976.

The State Advisory Committee for the writing of West Bengal District Gazetteers was reconstituted this year with Shri Asok Mitra, I.C.S. (Retired), Professor of Population Studies, Centre for Regional Development, Jawaharlal Nehru University, New Delhi as Chairman; and Professor Sunil Kumar Munsi, Shri Debabrata Bandopadhyaya, I.A.S., Dr. Barun Mukherjee, Shri Atis Dasgupta and Dr. P. N. Chopra, Editor, Gazetteers Unit, Government of India and myself as Members. On 9th September 1979 it resolved that the public interest would be best served if some elucidation of the historical background and updating of the material for the 1970 decade was carried out after a personal tour by myself in the District. The mass of data, on the history of the District in the old tour files of Shri Pranabranjan Ray, at present Assistant Editor in the Unit and also that which was made available on planning efforts in Darjiling by the kindness of Shri Prasad Ray, I.A.S., Additional Deputy Commissioner (General), Darjiling and by Shri Sant Bahadur Tamang Zimba, W.B.C.S., Development and Planning Officer, Darjiling as well as by Shri G. Balagopal, I.A.S., Chief Executive Officer, Himalayan Milk Producers' Union Limited at Matigara near Siliguri and by Shri Bikram Sarkar, I.A.S., then Director of Land Records and Surveys, West Bengal and his Settlement Officers in North Bengal, were too copious and disparate to tack on to the bulk and tone of this volume, prepared by my predecessors. So it was decided in

this office to publish the volume, as it had been prepared, without any further delay.

The unstinted services, during the last thirteen years, of various members of staff and officers of the Unit are gratefully acknowledged. The new practice has been started from the previous volume of giving on a separate page names of all members of the staff from 1967 to 1969, when the volume was being compiled : also of entitling the volume by names of all officers who wrote first drafts of each chapter, as well as State Editors during the period when the volume was being prepared, either under compilation or in the press. The following officers wrote first drafts of chapters as noted below:

I.—GENERAL AND PHYSICAL ASPECTS—Shri Nirendra Nath Sen, then Research Officer (at present Assistant Professor of Geography, Presidency College, Calcutta).

II.—HISTORY AND PEOPLE—Shri D. Majumdar, final draft of the history section, Shri Pranabranjan Ray and Shri Sankarananda Mukerji, W.B.C.S., then Research Officer (at present Assistant Secretary, Finance Department, Government of West Bengal), the remaining sections.

III.—AGRICULTURE AND IRRIGATION—Shri Kiran Sanker Sengupta, then Research Officer (at present retired). The section on Irrigation was prepared by Shri Nirendra Nath Sen.

IV.—INDUSTRIES—Shri Kiran Sanker Sengupta.

V.—BANKING, TRADE AND COMMERCE—Shri Satyaranjan Sengupta, at present Assistant Editor.

VI.—COMMUNICATIONS—Shri Nirendra Nath Sen. The section on Railways was written by Shri S. Sengupta.

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XIII.—MEDICAL AND PUBLIC HEALTH SERVICES—Shri S. Mukerji.

XIV.—PUBLIC LIFE AND VOLUNTARY SOCIAL SERVICE ORGANIZATIONS
—Shri S. Sengupta on public life, Shri P. Ray on social services and periodicals, and Shri S. Mukerji on advancement of backward classes.

XV.—PLACES OF INTEREST—Data compiled by Shri S. Mukerji and written by Shri Amiya Kumar Banerji.

The Bibliography, Index and List of Errata have been prepared by Shri Tarapada Maity, Research Assistant.

The Unit is thankful to Dr. P. N. Chopra and his staff for their patience in successive revisions of the drafts of this volume. Similar thanks are due to the previous members of the State Advisory Committee of the Unit for carefully sifting the text of each chapter shown to them for suggesting improvements. At the time it included Shri B. Sarkar, I.C.S. (Retired), Chairman, the late Professor Nirmal Kumar Bose, Professor Bhabatosh Datta, Professor Sashi Bhusan Chaudhuri and Professor Pratul Chandra Gupta. The Unit is also obliged to Shri S. L. Nag, Deputy Superintendent (Technical) of the West Bengal Government Press, Kadapara, Calcutta and to his staff for supervising and carrying out the printing of this volume to the best of their abilities. The Unit thanks those who have kindly supplied photographs for illustrating this volume.

The Unit's deep gratitude is expressed to all officers in the District, who made research possible in various offices in different parts of it, not always easy of access; also to public spirited individuals in Darjiling, Kalimpong, and elsewhere, who have supplied data and information, and many of whom drew on their memories and collection of documents to give Shri P. Ray, Shri Saugata Mukherjee and Shri N. Sen the benefit of this knowledge. In particular Sarvashri P. S. Chaudhuri, I.A.S. and his successor as Additional Deputy Commissioner, Darjiling, Shri Kalyan Biswas, I.A.S., Shri Arun Kumar Mitra, W.B.C.S. and Shri S. B. Tamang Zimba, W.B.C.S. gave very great help from 1967 to 1969. Shri Parasmani Pradhan, Shri M. K. Pradhan and Shri Arthur Fonning of Kalimpong, and the late Ganeshlal Subba, Tarak Kumar Karki and Delip Bose of Darjiling also showed great kindness during the initial compilation.

It remains for me to express my deep regret at the get up and printing errors that have remained from the press copy. The publication staff of the Unit are in no way responsible for this. Rather Shri P. Ray, Shri D. Roy Majumdar, Publication Assistant and Shri T. Maity have spared no efforts to remedy the situation,

not of their creation. I can only express the hope that subsequent Gazetteers will be free of the blemishes of paper and printing, that was this volume.

The West Bengal District Gazetteers : Darjiling volume is the tenth volume in a series projected since 1959 in a scheme jointly sponsored by the Government of India and the State Government. L.S.S.O'Malley prepared the first Gazetteer for the district in 1907. In 1947, another volume with more information was written by Arthur Jules Dash, I.C.S., Chairman of the Bengal Public Service Commission, which Government published in the Provincial Gazetteer series. In 1951, Shri A. Mitra, I.C.S. prepared the West Bengal District Census Handbook for the district which incorporated much material in these two books and added some new information. In 1961, a similar handbook incorporating new Census information was produced. It is hoped that this volume will be a worthy successor to that series. The supplement to the Darjiling District Gazetteer is now being prepared.



BARUN DE

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CONTENTS

CHAPTER I: GENERAL & PHYSICAL ASPECTS

Introductory (1-4); Topography (4-8); River System and Water Resources (8-21); Geology (21-48); Flora (48-68); Fauna (68-83); Climate (83-8); Appendix A: Table I—Darjiling District: Normals and Extremes of Rainfall (87-8); Table II—Darjiling District: Normal of Temperature and Relative Humidity (89); Table III—Darjiling District: Mean Wind Speed in KM./HR. (90); Table IV—Darjiling District: Special Weather Phenomena (91).

CHAPTER II: HISTORY & PEOPLE

History (92-6); Population (96-116); Languages (116-22); Religion (122-25); Festivals (126-28); Scheduled Castes (128-31); Scheduled Tribes (131-34); Social Life (134-60).

CHAPTER III: AGRICULTURE AND IRRIGATION

Land Reclamation and Utilization (161-62); Soil erosion (162-63); Irrigation (163-67); Agriculture including Horticulture—Nature and variety of soils and their suitability for cultivation of different crops (167-77); Fruits (177); Cultivation in plains (177-78); Implements used (178); Manuring (178-79); Block Seed Farm (179-80); Seed distribution (180-81); Fertilizers (181); High-Yielding crop programme (181-82); Agricultural diseases and pests (182); Plant protection (182); Activities on the Agriculture Department (183); Agricultural Research Centres and Field Station (183-84); State Assistance to agriculture (184); Cooperative societies (184-85); Animal Husbandry and Fisheries (185-88); Forestry (189-208); Appendix—Medicinal Plants Occurring in Darjiling District (209-21).

CHAPTER IV: INDUSTRIES

Old-Time Industries (222); Power (222-24); Industries & Manufactures of the District (225-59); Training and Development (259-61); Development of the Siliguri area (261); Labours and employers' Organizations (261-63); Labour Welfare Centres (263-64); Appendix—Labour Unions in Darjiling District (265-67).

CHAPTER V: BANKING, TRADE AND COMMERCE

Banking and Finance (268-71); Trade and Commerce (271-82); Appendix A—List of Markets in Darjiling District (283-85); Appendix B—List of Fairs and Melas in Darjiling District (286-87).

CHAPTER VI: COMMUNICATIONS

Old-Time Trade Routes and Highways and Modes of Conveyance (288-96); Road Administration in the Past (296-305); Road Construction during Five Year Plans (305-08); Impact of National Highways (309-11); Cement and termac roads, village roads and Forest roads (311-13); Vehicles & Other conveyances (313-14); Public transport (314-16); Rail Roads (317-20); Waterways, Bridges and Ferries (320-25); Air Transport (325); Other means of transport—Ropeways (325-27); Travel & Tourist Facilities (327-30); Posts & Telegraphs (330-35); Appendix I—Hiking from Darjiling to Kalimpong via Pashok Road (336-37); Appendix II—Important Hotels in Darjiling Town: 1969 (338-39); Appendix III—List of Post Offices in Darjiling Division as on 1 December 1967 (340-42).

Livelihood Pattern (343-44); Occupational classification of non-agricultural workers (344-46); General level of Prices (346-48); Wages (348-53); Cost of Living Index (353-54); Occupational shifts (354-55); Employment Exchange (355-57); Learned Professions (357-58); Community Development (359-60); Appendix—Livelihood Classes in Darjiling District: 1971 (361).

343-61

The State Government Set-up (362-82); The Central Government Set-up (382-84); Autonomous Bodies (384-86).

862-84

History of land revenue assessment and management (387-99) ; Present system of survey, assessment and collection of land revenue (399-401) ; Land Reforms (401-05) ; Appendix—Resumption of Tea Garden lands in Siliguri Subdivision (408-07).

387-497:

Incidence of Crime (408-12); Prosecution and Conviction (412-14); Shops and Establishment cases (414); Police (414-19); Excise Administration (419-20); Criminal Justice (421-22); Civil Justice (423-25); The Probation System (425-28); State assistance in legal proceedings (428); Separation of judiciary from executive (426); Jails (426-28); Appendix I—Major Offences Reported & Offenders Tried and Convicted or Acquitted in Darjiling District: 1961-67 (429-33); Appendix II Suits Instituted, Disposed of & Pending in all Civil Courts of Darjiling District: 1961-67 (434-35); Appendix III—Applications for the Execution of Decrees Filed, Disposed of and Pending in all Civil Courts of Darjiling District: 1961-67 (436); Appendix IV—Miscellaneous Cases Instituted, Disposed of and Pending in Each of the Civil Courts of Darjiling District: 1961-67 (437-38); Appendix V—Jail Population according to (A) Age-Groups, and (B) Prison Terms, in Darjiling District: 1961-66 (439-42); Appendix VI—Cases Tried by Magistrates in Darjiling District: 1961-67 (443); Appendix VII—Sessions Cases in Darjiling District: 1961-67 (444); Appendix VIII—Criminal Cases in Darjiling District: 1961-67 (445); Appendix IX—Convictions and Fines Ordered by Magistrates in Darjiling District: 1961-67 (446); Appendix X—Convictions and Fines in Sessions Cases in Darjiling District: 1961-67 (446); Appendix XI—Appeals and Revision cases in Darjiling District: 1961-67 (447).

407-47

History of Local Self-Government (448-49) ; Municipalities (449-57) ; Darjiling Zilla Parishad (457) ; Anchalik Parishad (457-58) ; Anchali Panchayats (458-59) ; Gram Panchayats (459-60) ; Darjiling Improvement Fund (460-63) ; Cantonment Boards (463-66) ; The New Act (466) ; Appendix I—Receipts and Expenditure of Municipalities in Darjiling District (467-68) ; Appendix II—Receipts and Expenditure of Anchali Panchayats (469-70) ; Appendix III—Receipts and Expenditures of Gram Panchayats 1966-67 (471).

448-71

CHAPTER XII: EDUCATION AND CULTURE

	Pages
Traditional Education (472-74) ; Introduction of Modern Education (474-79) ; Spread of education through vernacular media (479-85) ; Medium of Instruction (485-86) ; Literacy (486-91) ; Levels of education (491-94) ; Primary Education (495-99) ; Secondary Education (500-02) ; Higher Secondary Education (502-11) ; General Collegiate Education (511-17) ; Teachers' Training Institutions (518-19) ; Technical & Vocational education (519-22) ; Oriental education (522) ; North Bengal University (522-23) ; Medical College (523) ; Social Education (523-26) ; Physical Education (527) ; Libraries (528-32) ; Museums (533-34) ; The Lloyd Botanic Garden (534-36) ; Himalayan Zoological Park (536) ; Himalayan Mountaineering Institute (538-37) ; Institutions for cultivation fine arts (537) ; Literary Essociations (537-38) ; Other Cultural Associations (538-41) ; Public Halls and Auditoria (541) ; Appendix—Percentage Variations of Literates (Persons, Males & Females) Between 1901 & 1931, 1931 & 1961 and 1951 & 1961 in Darjiling District (542).	472-542

CHAPTER XIII: MEDICAL AND PUBLIC HEALTH SERVICES

Survey of Public and Medical Facilities in Early Times (543-44) ; The British Period (544-45) ; Vital Statistics (545-52) ; Diseases common to the District (552-55) ; Public Hospitals and Dispensaries (555-63) ; Public Health Welfare Organizations (563-67) ; Appendix—Patients Treated in Recognized Hospitals in Darjiling District & Deaths from Specific Causes : 1961-64 (568-70).	543-70
--	--------

CHAPTER XIV: PUBLIC LIFE AND VOLUNTARY SOCIAL SERVICE ORGANIZATIONS

Representation of the District in the State and Union Legislatures (571-81) ; Newspapers & Periodicals (582) ; Voluntary Social Service Organizations (583-91) ; Advancement of Backward Classes and Tribes (591-97).	571-97
---	--------

CHAPTER XV: PLACES OF INTEREST

Adhikari (598) ; Algara (598) ; Badamtem (598) ; Beni (598) ; Daling (599) ; Damsang (599) ; Darjiling Town (599-603) ; Ghum (603-05) ; Gokh (605) ; Jaldhaka (605) ; Kalimpong Town (605-07) ; Kurseong Town (607-09) ; Lamahatta (609) ; Latpanchar (609) ; Labha (609-10) ; Mahanadi Wild Life Sanctuary (610-11) ; Mangpu (611) ; Manibhanjan (611) ; Mansong (612) ; Matigara Hat (612) ; Mirik (612) ; Naksalbari (612-13) ; Pedong (613) ; Phalut (613) ; Pulbazar (613-14) ; Rambhi (614) ; Rangu (Rongo) (614) ; Sandakphu (614-15) ; Siliguri (615-17) ; Singla Bazar (617) ; Sonada (617) ; Soreng (618) ; Sukhiapokhri (618) ; Tindharia (618) ; Tista Bazar (618) ; Tanglu (619) ; Takdah (619).	598-619
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ART PLATES

BIBLIOGRAPHY	621-29
--------------	--------

INDEX	631-42
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ERRATA	643-46
--------	--------

CHAPTER I

GENERAL & PHYSICAL ASPECTS

INTRODUCTORY

The Dārjiling district, or its hilly portion (to be precise), consists of a vast system of ramparts and fosses girdling the Bengal plains on the north and having micro-units too numerous to be dealt with separately. The function of the mountain wall in intercepting monsoon clouds is quite clear. But it has also obstructed cultural and commercial movements. Transport at present is not entirely man- and animal-borne as elsewhere in the Himālayas. Automobiles and railways now carry a large part of the trade that exists in the district. Flying is theoretically possible over much of the area except in the monsoon months, but difficulties in landing, and still more in taking off in the rarefied air, severely limit the extensive use of aeroplanes.¹

There is a strong vertical zoning of climate and vegetation in the district depending on differences in exposure to sun and rain. Immediately above the conifers are alpine meadows, and mixed jungle below, followed by cultivated patches growing potatoes, maize, buckwheat, wheat, barley, mustard, millet, cardamom, oranges, pineapples, rice and various vegetables. Agriculture is marked by the dominance of rice, occupying 30 per cent of the total sown area. Tea acreage is about equal to that of rice (approximately 60,000 acres) and maize comes next with 50,000 acres. But cultivated land forms barely a quarter of the total area, the rest being mainly covered by forests which provide the most valuable of the exports (timber) of the district after tea and cinchona. The fields descend in successive terraces, levelled and embanked. Terracing is often most elaborate, covering entire hillsides with steps which are set up and maintained at prodigious labour. The villages usually lie along spurs low enough to avoid the bleakness of the ridge-tops but well above the sultry valleys.

The district derives its name from its headquarters which, in its turn, is named after *Dorje-ling*, the Buddhist monastery that once stood on the Observatory Hill overlooking Mall, the nerve centre of the town. The name Darjiling thus appears to be a corruption of Dorjeling,—*ling* meaning place, and *dorje* standing for the ecclesiastical sceptre or the double-headed thunderbolt, which the Lama holds in his hand during service, rested. "In Tibet the word *vajrah* became *dorje* and as time went on it became one of the most common of all the emblems associated with

Origin of the name
of the district

¹ O.H.K. Spate—*India and Pakistan*. London, 1964, p. 367

priestly power. It is almost always to be found among the objects on the altars in the temples.”

Location

Dārjiling, the northernmost district of the Jalpāiguri division, is located between 27° 13' 05" and 26° 27' 10" North latitudes and 88° 53' 00" and 87° 59' 30" East longitudes.¹ It roughly resembles an inverted wedge with its base resting on Sikkim, its sides touching Nepāl, Bhūtān and the Jalpāiguri district of West Bengal, while its apex projects into the Purnea district of Bihār, West Dinājpur district of West Bengal, and Bangladesh.

Boundary

Of all the frontier districts of India, the boundary of Dārjiling is most complicated. It is hemmed in by international frontiers. There is Nepāl to the west, Sikkim, a State of India to the north, and Bhūtān and Bangladesh to the east. Only three Indian districts, one of which is in Bihār, offer accessibility to Dārjiling, and that again, only from the south.

Growth of Darjiling and evolution of the boundaries

The district attained its present dimensions in 1866. How the district was created and reached its present shape will be described in detail in its 19th century history (Chapter I). The partition of 1947 left this district intact and as part of West Bengal.

The western boundary of Dārjiling commences from Phalut (a corruption of the Lepcha word *Fak-lut*, meaning peeled summit); meets the trijunction of the boundaries of Nepāl, Sikkim and India at a height of 11,811 feet above sea level and follows the Phalut-Simanabasti road on the crest of the Singālila spur southwards up to a point where the Singālila forests give place to tea estates (viz., Sivok Tea Estate) and then all along the mid-stream of the Mechi river from its very source at an altitude to the plains. From about 26°49' North latitude, the boundary runs in straight lines between pillars, criss-crossing the Mechi river in the plains.

The boundary along the Mechi river in the plains was demarcated in straight lines between pillars, jointly with Nepāl, from pillar No. 1 to pillar No. 135 by Col. H. C. B. Tanner in 1884-85, by C. O' Donel from B.P. 1 to B.P. 120 in 1925-26 and again by C. B. Sexton from B.P. 1 to B.P. 120 in 1937-38.

On the south, the boundary with the Purnea district of Bihār runs east for about 38 km. till the trijunction of the boundaries of Purnea, West Dinājpur and Dārjiling is reached on the right bank of the Mahānandā, which is the southernmost limit of Dārjiling. The boundary with West Dinājpur marches along the right bank of the Mahānandā river for about 13 km. (8 miles)

¹ The boundary limits have undergone minor changes since the previous gazetteers were written due to adjustments at State and district levels.

while with Bangladesh along the left bank of the same river for a distance of about 9 km. (6 miles). The district boundary then runs north along the Mahānandā up to a small distance, then it runs on the east of river, crosses the Bālāsān and Mahānadī rivers little above their confluence. The boundary line leaves the Mahānandā on the margin of the Terai and continues to run due north along the eastern margin of Champashari forest (J. L. No. 4 of P. S. Siliguri), southern and eastern margins of Sivok Forest (J. L. No. 3 of P. S. Siliguri) till it reaches the point where the Tista debouches on the plains near the Sivok railway station. From this point onward the district boundary runs east along the foot of the abruptly rising Himālayas cutting across numerous river valleys of Kālimpong hills for about 19 km. till the Lethi *Nadi* in P. S. Gorubāthān is reached. The boundary then runs along the left bank of the Lethi *Nadi* upstream for about 7 km. turns east and follows the right bank of the Chel *Nadi* and its tributary for about 5 km. to the southern boundary of Sakam reserved forest and after running due east for about 10 km. follows the left bank of the Neora river upstream, turns north-east, skirts the foot of the mountains separating the plantations of Jalpāiguri from the forest of Dārjiling, follows the left bank of the south-easterly flow Murti *Nadi* for a few kilometres and then turns east through the Khamani Reserve Forest till the Jaldhākā river is reached, which separates the district from Bhutān along a 30 km. boundary.

Lethi Nadi

In 1971 there were 7,81,777 persons in the district which had an area of 3,005 sq. km. (1,160 sq. miles), according to the Surveyor General of India and 3,954.7 sq. km. (1,256.6 sq. miles), according to the Superintendent of Census Operations, West Bengal and Sikkim. In 1869, when a rough census was taken, there were only 22,000 inhabitants, which means that within a century the district population has increased nearly thirty-fold. Between 1901 and 1961 the district had varying areas as are shown in the following table.

Total area and population of the district

Year	1901 to 1921	1931	1941	1951	1961
Area (in sq. km.)	3,014.8	3,139.1	3,087.3	3,107.2	3,254.6
Area (in sq. miles)	1,164	1,212	1,192	1,199.7	1,256.6

The variations in the territorial figures are mainly due to differences in the survey methods. The 1961 figures were obtained by fresh planimetry on large-scale maps and are still treated as provisional. At present some parts of the district are being surveyed by air-cum-ground method and the rest by photogrammetric method which is the most perfect device developed so far.¹

1 Source : Survey of India.

Dārjiling occupies only 3.68 per cent of the total area of the State and ranks 13th in point of area among the districts of West Bengal. It has 591 villages (of which 55 are uninhabited), which is the lowest figure for all the districts of West Bengal.

History of the
formation of the
district as an
administrative unit

As this is almost the history of the district, the matter will be dealt with in Chapter II.

TOPOGRAPHY

Natural divisions

The district consists of a portion of the outlying hills of the lower Himālayas and a stretch of territory lying along their base known as the Terai. The hills rise abruptly from the plains and the elevation increases northwestward. The mean elevation of the Terai is 300 feet (91.44 m.) above sea level, while some of the hills within the district rise to more than 10,000 feet (300 m.). Within these two main groupings, there is a mosaic of micro-topographic units and this complex physical environment is due to different geomorphic processes, each of which has developed its own characteristic assemblage of land-forms.

The physical configuration of the Dārjiling Himālayas is partly due to the direction of the main drainage, which is southern, and mainly due to geologic structure, which is a dominant controlling factor in the evolution of land-forms. The northern portions consist of hard gneissic rocks capable of resisting denudation to a considerable extent, while the southern portions comprise comparatively soft, thin, slaty and half-schistose rocks which are less resistant to erosion. The latter area is more accessible and better populated. There are no flat valleys or plains, no sizable lakes, nor any cultured landscape except where virgin forests have yielded place to tea gardens or terraced fields. The main ranges (Singālila and Chola) wind and give off spurs of second and third orders in all directions; the valleys thus formed present a great variety in climate and elevation. Consequently, the Dārjiling hill district has often been described as a confused labyrinth of ridges and valleys. Due to the complexity of geomorphic evolution Dārjiling presents a compound landscape in which two or more geomorphic processes (endogenic as well as exogenic) have played important roles in the development of the existing topography.

The Terai

The Terai lies between the mountains and the plains and is traversed by numerous hill streams. Its name originates from a Persian word signifying dampness. "Geologically, it is a sort of neutral country, being composed neither of the alluvium of the plains, nor of the rocks of the hills, but for the most part of alternating beds of sand, gravel and boulders brought from the mountains. Botanically, it is readily defined as the region of forest-trees; amongst which the Sal, the most valuable of Indian timber, is conspicuous.... The Terai soil is generally light, dry, and gravelly (such as the Sal always prefers) and varies in breadth from ten miles along the Sikkim frontier to thirty or more on the

Nepalese.”¹ In between the river channels lie gravel beds extending 20 miles south from the base of the mountains. These formations originating from glacial or glacio-fluvial processes are cut into flat-topped terraces, “flanking the spurs of the mountains at elevations varying from 250 to nearly 1,000 feet above the sea level. These terraces are of various breadth and length, the smallest lying uppermost, and the broadest flanking the rivers below.”²

The main Himālayan chain in this region runs in a north-west to south-east alignment and throws out southward two very tortuous and enormous spurs—the Singālila and the Chola ranges, which constitute a gigantic amphitheatre enclosing the whole of Sikkim and Dārjiling. “The snowy peaks here look like a long east-and-west range of mountains, at an average distance of thirty or forty miles. Advancing into the country, this appearance proves equally deceptive, and the snowy range is resolved into isolated peaks, situated on the meridional ridges : their snow-clad spurs, projecting east and west, cross one another, and being uniformly white, appear to connect the peaks into one grand unbroken range.”³ The rivers, instead of having their origin in the snowy mountains, rise far beyond them many of their sources are upwards of 100 miles (160 km.) in a straight line from the plains. “This rearward part of the mountain region is Tibet, where all the Sikkim, Nepāl and Bhutān rivers rise as small streams, increasing in size as they receive the drainage from the snowed parts of the ridges that bound them in their courses.”⁴

Mountains :
systems to which
they belong

This phenomenon should be clearly understood before examining the topographical features of Dārjiling district. The Singālila spur, more than 60 miles long, descends from these ranges and separates Dārjiling and Sikkim from Nepāl. The great Mungbreu range, on which stand the Tendong (8,600 feet or 2,644.44 metres) and Moniam (40,639 feet or 12,392.15 metres) peaks, separates the Rangit from the Tista, and the Chola range touches the northern limits of Dārjiling subdivision and projects into the Kālimpong subdivision. The Tista and the Jaldhākā forming the main drainage channels run north-south. The routes from the plains to the hill stations are along the intervening spurs or along the open river valleys. The valley-slopes are more flat and open towards the top, but attain a steep gorge-like character near the beds of the streams. The villages are almost always placed on the ramifying lateral spurs which give off lesser ones which, again, others of a third degree, thus cutting up the terrain

¹ J. D. Hooker—*Himalayan Journals*, London, 1854, pp. 265-66. The physical characteristics of the Kalimpong Duars do not differ from those of the Terai.

² *ibid.* p. 266.

³ J. D. Hooker—*op. cit.* Appendix. p. 548.

⁴ *loc. cit.*

into as many spurs, ridges and ranges as there are rills, streams and rivers among the mountains. The Dongkya massif in northern Sikkim is the culminant point of all these hill ranges; the rivers rising from it flow in various directions: the Tista south-west and the Jaldhākā south through Dārjiling, the Arun west through Nepal and the Amo Chu south through Bhutān. The perpetual snow line is approximately at 16,000 feet (4876.8 metres) while the glaciers descend 3,500 to 2,500 feet (1,063.8 to 762 metres) below that line. Formerly they used to reach much lower than they do at present and cover parts of the present Dārjiling district. The receding of the glaciers is a very recent phenomenon, and the ancient moraines testifying their advance still lie *in situ* inspite of erosion due to excessive rainfall.

The region to the west of $88^{\circ} 15' E$ and north of $27^{\circ} 0' N$ of Dārjiling district may be divided into three broad regions; to the extreme west the forest clad Singālila range, to the north the more open river valleys of the Rammam, Shiri Khola, Lodhoma and Chhota Rangit and to the south-east, the Ghum saddle. But for the intervening subsidiary valleys, especially of the Lodhoma and the Chhota Rangit, there is no break in slope and the general gradient is from Sandakphu (altitude 11,911 feet or 3,630.47 metres) in the west to the Rammam valley floor in the east-central region at an altitude of 1,500 feet. (457.20 metres). The Singālila range, the most conspicuous range in the district, encompasses the said river valleys as an amphitheatre. North of $27^{\circ} 0'$ parallel all streams flow into the Rammam, which again is a tributary of the Great Rangit.

The region to the north of $27^{\circ} 0' N$ and between $88^{\circ} 15' E$ and $88^{\circ} 30' E$ has to the north, the Great Rangit which flows in a very deep valley west to east and debouches into the Tista. A number of spurs emanating from the Ghum saddle hangs on the Rammam in the west and on the Tista in the south-central portions. East of the Tista (which is the main stream flowing south), the general gradient is westward though dominated by the Kālimpong dome. In the south-central portions the general gradient is towards the east and in the western half, which is dominated by the Ghum saddle, towards north and north-east. Thus there is no simple general gradient and the region can be divided into three zones, namely, the Kālimpong dome with its radial drainage pattern, the region to the south-east of Takdah-Pashok spur (which acts as a divide between the catchment areas of the Tista and the Rangit), and the region to the north-west of Takdah-Pashok spur. The last mentioned region is dominated by Dārjiling town, which is on a spur running north from the Manibhanjan-Senchal ridge and divides below the town into the Takvār and the Lebong spurs before they descend at right angles to the Rangit river. It is interesting to note that on the northern end of Takdah-Pashok spur the pattern of drainage is radial.

In the area bounded by $88^{\circ} 30'$ to $88^{\circ} 45'$ E by 27° N parallel, the most noticeable features are the Rangpo chu and the Tista valley descending from the north-east and the intricate mesh of hills and valleys radiating from the Richi La saddle, which is the culminating point of a spur. From the Labha saddle various branches of the main spur descend in all directions, and the valleys in between are drained by small mountain torrents. The radial drainage pattern is the result of these ramifying spurs especially around Richi La, which is 10,332 feet (3,049.19 metres) high. The most interesting feature of the landscape is that, above the 5500 feet (1,676.40 metres) contour it is almost virgin—all settlements are found below that elevation. In between $88^{\circ} 45'$ E and the Bhutan boundary the Jaldhākā valley and its numerous right bank tributaries constitute the only physiographic unit encompassing a rectangular hilly area with radial drainage north of 27° .

Within the area in between 88° to $88^{\circ} 15'$ E and $26^{\circ} 45'$ to 27° N, the main physiographic units are the Bālāsan and the Mechi river valleys separated by the Singālila range descending south. There is an abrupt break of slope at the 900-foot contour line. Below it the hill vegetation continues as Terai forests. The general slope is from north to south. In the area encompassing $88^{\circ} 15'$ to $88^{\circ} 30'$ E and $26^{\circ} 45'$ to 27° N, there are two distinct physical regions—the hills rising steeply from 750 feet (228.6 metres) contour and the plains of the Terai. The Bālāsan in its Terai portion, the Mahānandā and the Tista dominate the landscape. The slope is from north-west to south-east. The highest point is at Senehal (8,578 feet or 2,714.57 metres) in the extreme north-west. A kilometre north is the famous Tiger Hill (8,482 feet or 2,585.31 metres). In the area bounded by $88^{\circ} 30'$ to $88^{\circ} 45'$ E and $26^{\circ} 45'$ to 27° N the main physiographic features are the abruptly rising hills and the numerous river terraces hanging on the plains. The plains portion is almost wholly within the Jalpāiguri district. The hills portion falls within the Kālimpong subdivision. The highest point, Sonchonglu ($27^{\circ} 00'$ N and $88^{\circ} 33'$ E) is 6,225 feet (1,896.38 metres). The general slope of the whole region is southerly. In the area encompassing a small tract of Darjiling district north of $26^{\circ} 55'$ and between $88^{\circ} 45'$ E and $88^{\circ} 55'$ E, the only noticeable features are the numerous river terraces and the typical Bhabar belt along the Neora and the Murti. The Jaldhākā valley is flanked by steep escarpments and unlike the Tista gorge its floor is considerably wide.

The plains portion of the Darjiling district is in between $26^{\circ} 30'$ and $26^{\circ} 45'$ N and 88° to $88^{\circ} 30'$ E. The general slope is from north to south. The rivers describe meandering courses and their beds are sandy. The topography is almost flat and monotonous. Human settlements follow the gradient; the pattern is linear from north to south and they avoid the immediate neighbourhood of bigger streams which are liable to sudden floods. The Bhabar belt along the Mechi (north of $26^{\circ} 37'$ N latitude) is very conspi-

cuous. There are quite a few oxbow lakes along the Mechi and the Chenga.

Scenery

The scenery presented by the Terai, the abruptly rising spurs and ridges, the river terraces and the deep valleys varies considerably. Seen from the foot-hills, the vast expanse of the southern plains, hazy in the distant mist and traversed by myriad waterways with restful hamlets on their banks, offers an enchanting view. The shady forests in the Terai and on hill-slopes lend the scenery of Dārjiling a distinctive charm with their rich variety of woods ranging from the teak and *sal* at lower altitudes to maple, oak, chestnut and pine trees higher up. At greater elevations, orchids and rhododendrons drape the hill sides with their mosaic of colour. The snowy range lies to the north of the district, giving the appearance of a long range of mountains. The mighty Kānchenjunga towers to the north-west and its well-proportioned snow-clad massif attributes to Dārjiling the epithet 'the Queen of hill stations'. Seen from the air, the Singālila range with its numerous lateral spurs constitutes the Dārjiling hill territory west of the Tista, to the east of which the great Mungbreu range runs south from Dongkya, dividing at Gimpochi into two giant spurs, one of which runs south-east and the other south-west, encompassing between them the picturesque valley of the Jaldhākā. It is the lower half of the south-western spur, called the Chola range, that constitutes the hill territory of Kālimpong, east of the Tista.

RIVER SYSTEM AND WATER RESOURCES

The rivers of the Dārjiling district drain eventually to the south, though the Ghum and the Labha saddles cause a number of tributaries of the Great Rangit, the Tista and the Jaldhākā rising on their northern faces to flow north while others flow east or west before joining the main streams. Thus a complicated pattern of drainage has evolved amidst the myriad interlacing ridges and ramifying spurs. The valleys on the south-eastern side of the Singālila ridge are drained by the Mechi, Bālāsan and the Mahānadi rivers while the rest of the Dārjiling hills is drained by the Tista and its tributaries, except the extreme eastern portion where the chief effluent is the Jaldhākā. Of the innumerable hill streams there are four important right-bank tributaries of the east-flowing Rammam, itself a tributary of the Great Rangit. The Great Rangit receives five perennial right-bank feeders before it joins the Tista—the master stream of the district—into which falls seven tributaries from the right and five from the left. The Mahānadi is fed by only three right bank and four left bank streams. The Bālāsan, a right bank tributary of the Mahānadi, receives seven streams from the right and an equal number from the left. The Mechi has three left-bank tributaries while the Rangpo Chu, the most important left bank feeder of the Tista, has only one important left bank tributary, the Rishi Chu, which in its turn receives numerous north and north-west flowing streams. The Chel, the Lethi, the Gish and the Lish drain the waters of numerous rain-fed rivulets from the Kālimpong hills and become

the most dominating factor of environmental control in the Duars. No less important is the Jaldhākā which receives five right bank tributaries and numerous left bank tributaries from the Blutān side. A short account of the principal rivers of the district and their tributaries (up to the fourth order), all of which are perennial, is given below.

The Ratho Khola rises from the Singālila range south of Phalut (altitude 11,811 feet or 3,600 metres approximately) and flows due east through Phalut and Sabargam Blocks and debouches into the right bank of the Rammam (or Ranbang) river at an altitude of 7,487 feet (2,282.03 metres). A little above this point there is a bridge on the road from Rammam village to Phalut. The catchment area is the eastern slope of the Singālila range, north of 27°10' N.

Ratho Khola

The Shiri Khola rises from the same range near Sabargam on the Indo-Nepāl border (altitude 11,625 feet or 3,543.3 metres), flows south-east through coniferous forests to an altitude of 9,500 feet (2,895.6 metres) and then through dense mixed jungle of the Rammam and Shiri Blocks to an altitude of 6,703 feet (2,043.07 metres) and then north-east through precipitous gorges (where there is a bridge at an altitude of 6,185 feet or 1,885.18 metres) and finally empties into the Rammam river at an altitude of 5,120 feet (1,556.48 metres).

Shiri Khola

The Parthām Khola rises near Sandakphu at an altitude of 11,911 feet (3,630.47 metres), flows north-east through the Sandakphu Block, receives at 7,292 feet (2,122.60 metres) the Gurdum Khola, a right-bank tributary, and meets the Shiri Khola at 6,703 feet (2,044.67 metres). Beyond this point the south-facing slope on the left bank of the stream is very sparsely wooded, grass and bamboo predominating, with two riparian settlements, Phedigaon and Dandagaon.

Partham Khola and
Gurdum Khola

The Lodhoma Khola rises from the Singālila range and flows north-east through the Rithu Block, takes a left-bank tributary, the Rithu Khola at an altitude of 5,968 feet (1,819.04 metres), leaves behind the dense mixed jungle of the Rimbik South Block and debouches into the Rammam at an altitude of 2,858 feet (871.18 metres). Monggong Khola is another important left-bank tributary of the Lodhoma flowing in an easterly direction past Lodhoma settlement and debouching above the bridge over the Lodhoma at an altitude of 4,800 feet (1,463.04 metres). The Dilpa Khola and the Pālmajhua Khola are right-bank tributaries of the Lodhoma. They flow north almost parallel to each other, through the Kānkibong, Rilling and Selimbong Blocks and the combined stream debouches into the Lodhoma at an altitude of 4,808 feet (1,465.48 metres) near Lodhoma village (88°5' E and 27°5' N).

Lodhoma Khola
and Rithu Khola

Dilpa Khola and
Palmajhua Khola

Jhepi Jhora

The Jhepi Jhora rises on the outskirts of Selimbong Blocks and flows east up to Jhepi village (4 miles from Pulbazar by road) at an altitude of 3,909 feet (1,191.46 metres), where there is a bridge on the road leading to Bijanbari Bazar, and then north to debouch into the Rammam at an altitude of 2,750 feet (838.2 metres). On its upper course the Chhota Rangit is fed by a number of tributaries, chief among them are the Sarjan or Shiri Khola which flows south-east through the dense mixed jungle of Tanglu, Batasi and Chhota Rangit Blocks, turns east through more open woodland and finally north-east from a bridge point below its confluence with the Chhota Rangit at 4,330 feet (1,319.78 metres) : the Kāli Khola, which flows parallel to the Sarjan Khola through Rilling, Tanglu and Batasi Blocks to meet the Chhota Rangit below a bridge at an altitude of 3,950 feet (1,203.96 metres) and the Laring Khola which rises on the outskirts of the Rilling Block at an altitude of about 8,000 feet (2,428.40 metres) and flows east to debouch into the Chhota Rangit near Bijanbari Bazar. At this point there is a bridge on the Laring Khola. All these are left-bank tributaries. The Chhota Rangit itself rises from under the Tanglu dome in the Singālila range and flows north-east to debouch into the Great Rangit at an altitude of only 1,015 feet (309.37 metres) to the east of Singla Bazar. One remarkable feature of the Chhota Rangit valley is that its right-bank slope is densely wooded, while the east-facing slope is more open and more densely settled. From about 80°15' E, the Chhota Rangit describes a meandering course through a deep and precipitous gorge and before it empties into the Great Rangit it builds up a large fan about 1 sq. mile in area. Of its numerous right-bank tributaries, the chief is the Neora Jhora which takes its rise from near Ghum and flows north-northwest to debouch into the Chhota Rangit at 1,990 feet (606.55 metres). There are more than seven bridges on the Neora Jhora and its tributaries.

Neora Jhora**The Rammam**

The Rammam itself, one of the chief tributaries of the Great Rangit, takes its rise under the Phalut peak in the Singālila range, which forms the western boundary. It first touches the district in the extreme north-west and then flows from west to east. Of the important left-bank tributaries of the east-flowing Rammam the chief are Kāli Khola, Ribdi Nadi, Riyong Khola and the Rāni Khola, all of which originate on the Sikkim side.

All the aforesaid streams occupy valleys in between numerous branching and ramifying spurs of the Singālila range. Such ramifying spurs are called Danda such as Kingsa Danda, in between Ratho Khola and the Rammam river; Sandakphu Danda, in between Parthām Khola and Shiri Khola; Deorali Danda, in between the Kānkābong and Rilling forest Blocks, and Rimbik Danda dividing the Shiri Khola from the Lodhoma Khola and so on.

The Great Rangit

The Rangit, the chief affluent of the Tista flows south from the Sikkim side and from its confluence with the Rammam forms

the district boundary. The combined waters of the Rammam and the Rangit as well as Chhota Rangit assume the name of the Great Rangit which flows east-southeast till it joins the Tista. Besides the numerous left-bank tributaries originating in Sikkim, there are two important right-bank tributaries of the Rangit, namely, the Rammam, and the Chhota Rangit, flowing in from the Dārjiling side. The Jhepi Khola takes its rise from below St. Joseph's College in Dārjiling at about 6,000 feet (1 828.8 metres) and flows north up to 2,000 feet (609.6 metres) and then east to debouch in the Great Rangit near Mānjhitār at an altitude of 1,007 feet (306.93 metres). The Jhepi Khola passes through Rangit (Chhota Pattabong), Bara Pattabong, Takvār, Phubsering and Barnesbeg tea gardens.

Jhepi Khola

The Rongdong or Rangnu Khola takes its rise from Senchal in a valley several thousand feet deep and flows north-northeast through the Senchal and akdah Reserved Forests, a number of tea gardens, namely, Alubāri, Meghdal, Harisinghātā, Mineral Springs (Dāwāipāni), Bannockburn, Ging, Takdah, Badamtam, Glanburn (Kambal) and a dense *sal* jungle of Badamtam Block to debouch into the Great Rangit at an altitude of 1,000 feet (304.8 metres). It is practically a mountain torrent which comes tearing down from Senchal, and though its roar is heard and its course is visible throughout its length, the stream itself cannot be seen clearly from above.¹ There is a bridge just above the confluence. The Handi or Lopchu Khola rises near the Takdah monastery and flows north-northeast through Glandaruel, Lopchu and Pashok tea gardens, all of which are enclosed by the Sambong and Pashok Blocks of Rangit Reserved Forest, and empties into the Great Rangit at an altitude of 800 feet (243.64 metres) on its southern bank. A little above this point there is a bridge on the Lopchu Khola. The Great Rangit is approximately 100 yards wide near its confluence with the Tista.

Rangnu Khola

Lopchu Khola

The Great Rangit is a graceful mountain torrent with shelving banks and a gravelly bed. "Its banks are usually clothed in forest, but here and there can be found patches of cultivation. Its meeting with the Tista provides one of the most picturesque scenes along its course. Here there is a great difference in the colour of the waters of the two rivers, that of the Tista being cloudy while the water of the Rangit is dark green and very clear. There is no less marked a difference in the temperature of the two rivers, the water of the Rangit being appreciably warmer than that of the Tista. The colour and the coldness of the latter are no doubt due to the number of glaciers drained by it while the Rangit is chiefly supplied by the rainfall of the outer ranges of the Senchal and Singalila hills and hence its water is warmer and clearer, except in the height of the rains."²

¹ L. S. S. O'Malley—*Beng. Dist. Gazetteers ; Darjeeling*, Calcutta, 1907. p.8

² A. J. Dash—*Bengal District Gazetteers ; Darjeeling*, Alipore, 1947- p. 5

The Pashok Khola

The Pashok Khola descends from the Takdah spur, flows north-east and debouches into the Tista a mile above the Tista Bridge. There is another bridge over this rill near its confluence with the Tista. It traverses a deep gorge in its upper course and its left bank is densely wooded. The Rangnu or Giel Khola also descends from the Takdah spur but flows due east and meets the Tista at an altitude of about 800 feet (243.64 metres). Just above the confluence there are two bridges, a road bridge and a railway bridge. The south-facing slope of this river valley is cultivated and is bare of forest cover. The Tista valley itself is, however, densely wooded. The subdivisional boundary is also the boundary of this wooded zone comprising Māngwa and Riāng Reserved Forests which the Giel Khola traverses. The Kāli Khola rises between Tiger Hill and Senchal peaks, flows east and debouches into the Rambi Khola or Rangio Nala which rises from the Takdah Reserved Forest and flows east describing the northern boundary of Mangpu cinchona plantations up to the Rambi police outpost where it receives the waters of the north-flowing Rayeng Nala and then flows north-east to debouch into the Tista through a deep and precipitous gorge at an altitude of about 650 feet (198.12 metres).

The Rangnu or Giel Khola**The Kāli Khola,
The Rambi or
Rangio Nala****The Rayeng Nala**

The bed of the Rayeng in its lower course is sandy and the valley bottom quite wide. The Rayeng rises in the Mahāldirām Reserved Forest at an altitude of approximately 8,000 feet (2,438.40 metres) describes the southern boundary of Mangpu cinchona plantations and flows east up to Longku and then north through a deep gorge.

**The Dam Khola,
Siti Khola, Kāli
Khola and Sivok
Khola**

Of the smaller tributaries joining the Tista from the west are, from north to south, the Dam Khola and Siti Khola in the Kundong Block, the Kāli Khola in the Sitong and Ryem Blocks and the Sivok Khola flowing through the upper Ghoramara, Gola and Chawa Blocks of the Sukna-Tista Reserved Forest. All of them descend from the Lātpanchar dome and flow roughly from west to east through deep gorges having the appearance of hanging valleys. At Sivok, the Tista debouches on to the plains and from that point westwards, there is an abrupt break in the slope at the 500 feet (152.4 metres) contour. Around the Lātpanchar dome there is a radial pattern of drainage flowing not only into the Tista but also into the Rayeng to the north and Mahānadi to the west.

**The Mahānadi (or
Mahananda)**

The Mahānadi has its source near the Mahāldirām dome, east of Kurseong, and flows south-east receiving only one or two sizable right-bank tributaries but more than five important left-bank tributaries descending from the Lātpanchar dome. The river attains its full girth after leaving the Terai portion of the district. The name Mahānadi, or as it is also called the Mahānandā, is a Bengali corruption of Mahāldī, the Lepcha name of the river. Just below Siliguri, the Mahānadi receives the Bālāsan on its right

bank and thereafter describes wide meanders over a wider bed. Rain-wash or sheet-wash has contributed in the case of this river to valley widening while features of gulleying are also noticed on valley sides from 375 feet to 350 feet. The cross profile of the valley is asymmetrical due to meandering and lateral erosion. The parallel drainage texture of the plains built up by the Mahānadi and its effluents has naturally depended on the existing relief with a very low gradient. The slope is concave in general. Above Siliguri, where sheet-wash and large-scale erosion are not very effective due to the dense canopy of the Terai forests, there are very few stream courses. But beyond the forest limits there are numerous channels running parallel to each other. Below Phānsidewa Hāt, where the river is called Mahānandā, only incipient stages of meander development are noticed. The floodplain materials consisting primarily of finer alluvium, have a thickness exceeding the depth of the river channel, but beneath this finer alluvium there are coarser materials representing channel deposits made at the various positions occupied by the stream as it migrated laterally over its valley flat.

The Siva Khola is the only important right-bank hill tributary of the Mahānadi. It rises from the Pāglājhora Reserved Forest on the Senchal-Mahāldirām-Tindharia spur and flows east-southeast through a number of tea gardens and Siva Khola Reserved Forest to descend into the Mahānadi at an altitude of 985 feet (300.12 metres). The Babul Khola Reserved Forest is named after the stream of the same name flowing south-southeast through dense mixed jungles and a deep ravine to descend into the Mahānadi gorge. The combined Mana Khola and Jhoti Khola rising from the Mana Block (26° 55'N) also traverses deep gorges circumscribing the Lātpanchar dome to descend south into the Mahānadi at Gitingi Tea Garden at an altitude of about 1,000 feet (304.8 metres). The Jogi Khola rising from Lātpanchar, flows south through Kuhi, Bandarjholā and Jogijhōra Forest Block and meets the Mahānadi at an altitude of 604 feet (184.10 metres). This is also the point from where the Mahānadi begins to widen. The Gulma Khola and Ghoramara Khola rise from Upper and Lower Chorammars Forest Block south of Lātpanchar and flow south through Terai Forests of Sivok (North and West), Silibhita, Gulma and Singhimāri Blocks to descend into the Mahānadi at 445 feet (135.64 metres). They are joined from the east by the Singhi Jhōra, an entirely Terai stream. The upper catchment basin of the Mahānadi is small but it receives a large amount of rainfall in the monsoon. After leaving the hills, the Mahānadi flows south as far as Siliguri where it changes its direction to the south-west and forms the district boundary.

Through the interfluvium between the Mahānadi and the Bālāsān run the road and rail routes to Dārjiling. The Bālāsān rises from Lepchājagat Peak on the Ghum saddle and flows south almost parallel to the 88° 15' meridian till it reaches the plains at

The Siva Khola

The Babul Khola

The Mana Khola
and Jhoti Khola

The Jogi Khola

The Gulma Khola,
Ghoramara Khola
and Singhi Jho

The Balasan

an altitude of 1,000 feet (304.8 m) and then turns south-east where its valley is larger than that of the Mahānadi, although its catchment basin does not receive so heavy a rainfall as that of the latter. On entering the Terai it divides itself into two channels, one called the New Bālāsan which joins the Mahānadi just below Siliguri and the other, the Old Bālāsan, continues southward and passes out of the district to join the Mahānadi lower down. At the base of the hills the Bālāsan is flanked by three terraces—the first one only a few feet higher than the present river bed, the second one 20 feet (6.09 m) higher than the first and the third 150 feet (45.72m) higher than the second. There is an excellent exposure of stratified sand and gravel rising to 40 feet (12.19m) on the west bank.¹ The new channel is said to have been formed some 120 years ago by the Meches who dammed up the old stream for the purpose of fishing. The volume of water now flowing through the Old Bālāsan is considerable. Of its innumerable right-bank tributaries, the chief are Pulungdung Khola which rises from the southern face of the Ghum saddle just below the Sukhiāpokhri-Simānābasti road and flows south-east through Ghumpāhār Reserved Forest and debouches into the Bālāsan at an altitude of about 3,000 feet (912.24m). The Rangbang Nala originating below Simānābasti (7,544 ft. or 2299.38m) on the southern extension of the Singālila range flows south-east through reserved forests and a number of tea gardens and meets the Bālāsan in a deep gorge. Roads to Mirik pass over two bridges, one at 3,428 feet (1,044.85m) (Gopāldhāra Tea Garden) and the other at 4,450 feet (1,356.36 m.) between Sivok and Selimbong Tea Gardens. For its picturesque grandeur the Rangbang gorge is a potential tourist attraction. The Marma Nala rising from the south-facing escarpment of the Mirik dome flows east and meets the Bālāsan in a deep gorge. The valleys of the Rangbang and Marma Nala very closely resemble hanging valleys. The Manjwa Jhora, only $1\frac{1}{2}$ miles to the south of the Marma Nala, flows almost parallel to the latter through dense forests. The Dudhia Jhora descends from the Phuguri tea garden 3,631 feet (1,106.72 m) flows south-east in a concave gradient and debouches into the Bālāsan at an altitude of about 1,000 feet or 304.8 m. For the greater parts of their courses, the south-southeast flowing tributaries, the Chenga and Mānjha Nalas, negotiate the Terai forests and the plains.

From north to south the chief left-bank tributaries of the Bālāsan are the Bhīm Khola, the Rangmuk Nala, the Jor Khola, the Pachhim Nala and the Rinchingtong Khola, all of which rise from the Senchal spur south of the Ghum saddle and flow from north-east to south-west through deep and precipitous gorges, a few tea gardens and dense forests. Below Kurscong the main tributaries of the Bālāsan are south flowing. They are, from west to east, the Rungsung Khola, the Rakti Khola and the Rohini Khola, all of which have scooped out deep gorges though they

¹J. D. Hooker—op. cit. p. 283.

Pulungdung
Khola

Rangbang Nala

Marma Nala

Manjwa Jhora

Dudhia Jhora

The Chenga and
Manjha Nalas

The Bhim, the
Rangmuk, the Jor,
the Pachhim and
the Rinchingtong

The Rungsung,
Rakti and Rohini
Kholas

have very small catchment areas in the hills. The Rakti, in particular, cuts a cliff ranging from 60 to 100 feet composed of stratified sand and water-worn gravel.

The Mechi river forming the Indo-Nepāl boundary rises at an altitude of 6,250 feet (1,905m) south of the west facing Rangbang spur of the Singālila range at about 26° 55' North, flows through a deep gorge throughout its hilly course and descends into the Bhabar tract where the bed suddenly widens to about 1,100 feet (335.30 m.) Below this point there is a long stretch of loose and water-worn gravel intersected with water channels. Terraces flank the Mechi as well as the Bālāsan at the point where the Singālila slopes abruptly on to the plains. The Mechi flows past Lohārghur, or 'iron hill', which lies in a dense forest. Its plain-ward flanks are very steep and covered with scattered weather-worn masses of ochreous and black iron-stone, many of which are several yards long, emit a faint metallic lustre, but does not affect the compass.¹ The Mechi eventually joins the Mahānandā.

The Mechi

The main left-bank tributaries of the Mechi, from north to south, are the Kiyāng Khola which joins at an altitude of 2,084 feet (635.2 metres), the Ashli Jhora at 1,400 feet (426.72 metres), and the Mana Jhora at about 1,000 feet (304.8 metres). The old and the new Mechi rivers, in their plains courses, are several miles apart but flow in the same depression, a low swamp many miles broad which is grazed during the spring and cultivated during the rains.²

The Kiyang Khola
Ashli Jhora
Mana Jhora

The Tista, by far the most important river of the district, rises from a glacier in the north of Sikkim and drains the whole of that State. In its upper reaches, it is known as the Lao-chung Chu. South of the Donkya range, it joins the Lachen. The discharge of the united streams is reckoned at more than 10,000 cusecs during the height of the monsoon which, however, is a mere fraction of the water carried by it when it enters the plains.³ The Tista forms the boundary of the district from the point where it is joined by the Rangpo Chu to its junction with the Great Rangit. From the latter point it flows entirely within the district through a gorge known as the Sivok Gola pass until it leaves it at Sivok eventually falling into the Brahmaputra in East Pakistan (now Bangladesh). It is a broad mountain torrent with numerous rapids. Its current is swift (14 miles an hour at places), dangerous, and liable to sudden rises in level due to its flow being restricted by the steep gorge.

The Tista

At the point where the Tista meets the Great Rangit, the water of the former is colder than that of the latter. Hooker observed : "At their junction, we could almost place one foot in the cold

¹J. D. Hooker—op. cit. p. 283.

²ibid. p. 269.

³ibid. p. 359.

stream and the other in the warmer. There is no less marked difference in the colour of the two rivers ; the Teesta being sea-green and muddy, the Great Rungeet dark green and very clear ; and the waters...preserve their colours for some hundred yards ; the line separating the two being most distinctly drawn." The temperature difference is, "no doubt, due partly to the Teesta flowing south, and thus having less of the sun and partly to its draining snowy mountains throughout a much longer portion of its course."¹ Below its junction with the Rangit the Tista gorge is hardly 100 yards broad and as soon as it debouches into the plains, it widens and becomes several hundred yards wide.

The Rangpo Chu

Simana Khola
and Rishi Chu

Of the important left-bank tributaries of the Tista the chief is the Rangpo Chu which flows from west to east and forms a part of the district boundary. The Rangpo Chu receives the combined streams of Rishi Nala or Rishi Khola and Simana Khola at 1,384 feet (421.86m.) and the Kāshyem Khola at 1,205 feet (366.28m). Near the source of the latter on the 6,000 ft. (1,828.8m) contour line there is a ruined fort within the Munsong Government cinchona plantation. The north-flowing Mendong Chu or Mandum Khola debouches into the Rishi Khola at an altitude of 1,884 feet (574.24m.). The Rishi Khola also flows north up to an altitude of 2,267 feet (691.98m) where it receives the Simana Khola and then flows north-west and becomes Rishi Chu. The Tumthāng Khola flows south through dense mixed jungles in a north-westerly direction to debouch into the Tista at an altitude of 820 feet (249.28m). The Tar Khola flows parallel to the above river and joins the Tista at 790 feet. Both these rivers have etched out deep gorges in the spur which extends from Kālimpong to Pedong. The Bhalu Khola descends from the Kālimpong dome and flows west to Tista. Below the Kālimpong dome, the most important left-bank tributary is the Rilli which has numerous tributaries in its upper reaches. It falls into the Tista opposite Rayeng railway station at an altitude of 697 feet (212.44 m). It flows through Khampung, Rinkinpong, Tunang and Nāzuk. On its right bank the more important tributaries are the Thamk Chu and Kamesi Jhora, both flowing north to south and on its left are the Pala Khola, Rani Khola, Suruk Khola and Samthar Khola, all flowing from south-east to north-west. Its other important hill tributaries are Guling Khola, Paunbu Khola and Parbu Khola, all flowing from west to east.

The Rilli

The Pala Khola

From the western flank of the Lābha saddle descends the Pala Khola from an altitude of about 5,000 feet (1,524 m) and the Rilli Nala from an altitude of 7,750 feet (2,362.2 m). There is a bridge over the Pala near its confluence with the Rilli at an altitude of 1,875 feet (571.50 m). Both the rivers are west flowing and their gradients are not as sharp as the north and south-flowing rivers.

¹loc. cit.

The Rāni Khola is a south-flowing tributary of the Rilli descending from the Kālimpong hills.

The maps show the river Jaldhākā entering the district at an altitude of 2,020 feet (615.69m.) at its confluence with the Ni Chu, a right bank tributary. The Ni Chu which forms the district boundary at its north-eastern corner, flows west to east from the Richi La dome which dominates the Tista-Jaldhākā interfluvium. The drainage pattern of its valley is dendritic. Of the left-bank tributaries, the chief are Assam Khola, Bindu Khola, Sati Khola, Sipchu Jhora and the Jiti river while the principal right-bank tributaries are the Pareng Khola and Jhalung Khola which combine at an altitude of 1,450 feet (441.96 m.) before debouching into the Jaldhākā at 1,203 feet (366.67 m). Another right-bank tributary is the Naksal Khola which flows south-east. The Ni Chu has four tributaries, the northernmost being Kiring Chu which descends from the eastern face of Richi La and flows east through an incised valley in the Ni Reserved Forest and meets the main stream at 3,345 feet (1,095.55 m). The other three tributaries flow north-east as they descend from a spur projecting north-west to south-east from the Richi La, which acts as a divide between the east-flowing and south-flowing tributaries of the Jaldhākā. The names of these tributaries are, from north-west to south-east, Tapdang Chu, Chi Chu and Chisung Chu. Around Kitapsi peak (7,752 ft. or 2,362.2 m.), which is the easternmost extension of the aforesaid spur, a radial drainage pattern has evolved. The northern face of the spur is less steep than the southern from which descends the Murti Nala flowing through precipitous, sculptured gorges and joining the Jaldhākā at an altitude of about 400 feet (121.92 m). The Neora Nala, another tributary, issues from Richi La and forms the district boundary at about 1,200 to 750 feet. In its upper course the Neora takes in a number of tributaries from both sides which have cut deep gorges in between 3,000 and 7,000 feet. The most important of them are the Dhaula Nala descending from the eastern face of the Lābha saddle and flowing from north-west to south-east to join the Neora Nala at 4,785 feet and the Thosam Chu, a left-bank tributary, which descends from the Richi La and flows south to join the Neora Nala at 5,245 feet (1,598.67 m).

The Jaldhaka

The Ni Chu

Naksal Khola
Kiring Chu

Of the many streams flowing down the northern face of the Lābha saddle the important are, from north-northeast to west-southwest, the Simana Khola, which forms the district boundary from its very source at an altitude of 6,128 feet (1,867.81 m.), the Rache Khola and Rangbang Khola which descend from a north-west running spur of the Richi La the Change, the Rishi Nala, which forms the district boundary from its confluence with the Simana Khola at 2,267 feet to its debouching point into the Rangpo Chu at 1,348 feet, and the Mandum Khola which flows past Pedong and meets the Rishi at 1,884 feet. The Pedong-Kālimpong spur overlooking the Rangpo-Tista valleys to the

north-west is remarkable as a divide. From north-east to south-west the main streams descending from this spur are the Kāshyem Khola, the Tumtang Khola, the Tar chu, the Mam Khola and the Bhalu Khola.

The Chel

The Chel descends from the Lābha saddle which is conspicuous for its radial drainage pattern. In its upper course it is fed by the Sir Khola, the Sel Khola, the Majhua, the Chunge, the Chitung Nala, the Ambyok Nala and the Kālī Khola, all of which pass through deep gorges amidst dense mixed forests. As the Chel debouches on to the plains, it receives on its right bank the Sukna Khola and the Mangzing Khola, both rising from the Lābha spur within the Tista-Chel reserved forest. In the plains, a part of the Mangzing Khola and the Chel forms the district boundary. Flowing almost parallel to the Chel is the Lethi which rises from the Noam Block at an altitude of about 4,000 feet (1,219.20m) and forms a part of the district boundary. The Git Khola rises from the south-western face of the Lābha saddle, receives a number of anonymous tributaries and flows south meandering along incised valleys within dense jungles of the Tista-Chel Reserved Forest. It is called the Gish Khola in the plains where it receives the Lethi on its left bank and the Rāmthī Nala, Churonthi Khola and Habang Nala on its right. The Lish Nala to the west of the Gish rises from the Pabringtār and Nimbong Reserved Forests and has a shorter hilly course. On its left it receives the Turang Khola at 1,406 feet (428.54 m.) flowing from north-east. Both the Lish and the Gish join the Tista in Jalpaiguri district.

Git Khola and
Gish Khola

Lish Nala

LENGTHS OF THE MAIN RIVERS AND THEIR TRIBUTARIES WITHIN DARJILING DISTRICT*

Name of river/tributary	Length	
	(in kms.)	(in miles)
Bālāsan	48.40	30.11
Chel Nala	10.46	6.50
Chenga Nala	62.58	35.92
Chhota Rangit	23.77	14.77
Gish (Git) Nala	30.20	18.75
Bari Rangit	18.57	11.54
Jaldhākā (Di Chu)	19.47	12.10
Lish Nala	12.10	7.50

*Source : Survey of India.

Name of river/tributary	Length	
	(in kms.)	(in miles)
Mahānadi (Mahānandā)	91.70	56.96
Mechi	63.21	45.50
Murti Nala	13.82	8.52
Neora Nala	27.46	17.06
Ni Chu	14.90	9.26
Rammam (Rangbang)	39.78	34.72
Rangnu Khola	16.27	10.11
Rangpo Chu	9.66	6.00
Rayeng Nala	18.70	11.65
Rilli Nala	30.64	19.04
Rishi Chu	17.36	10.79
Tista	37.00	23.01

Apart from the immediate loss caused to life and property, floods in North Bengal also result in widespread sand deposition making agricultural land unfit for cultivation. Silting of river beds owing to erosion in the upper reaches and catchment areas is an important factor leading to floods. Short-term protective measures in and around areas prone to submergence can only minimize the extent of devastation but cannot eradicate the root causes. Experts have, therefore, recommended soil conservation in the catchment areas as the only effective long-term measure to check the ravages of rivers on the rampage. This would appreciably minimize the load of silt carried by the rivers besides training those which threaten to dry up or force new channels. In view of its importance, soil conservation work forms an integral part of agriculture and forestry in the hill areas.

Floods

The springs and rivulets on the southern slope of the Senchal range situated just south of Darjiling town supply water to the Darjiling municipal and cantonment areas. A supplementary source is the Konkno a spring at a lower altitude.

**Springs and
spring-heads
location, utility
etc.**

There is a number of minor springs and rivulets between Kālimpong and Gorubathan border but they have very meagre discharge. The network of springs in the Durbindanra hill, south of Kālimpong, has a moderate discharge which may meet local requirements only.¹

¹ Source : Geological Survey of India.

Near Dārjiling town certain mineral springs are located at a spot called Devī Pāni (Dāwāi Pāni is the accepted spelling which means medicinal water) on the west surface of the hill to the east of the Mall. Hunter says : "These were formally utilised for medicinal purposes, and a convalescent depot was built near by for the convenience of the troops at Jalapahar. The water, however, is not used at present, and the depot has gone to ruin." Besides this source, which gave its name to the 'Mineral Spring Tea Estate', there are several other such springs in the district, from which, according to Hunter, waters ooze out warm, and of a reddish colour with a strong sulphurous odour. The hill-people believe in the medicinal efficacy of these springs.¹

Lakes

Of the few lakes in the district, one is situated about 6 miles west of Hope Town while another, called Ramtal and adjoining a little stream named the Ramthi *nadi* a few miles to the east of the Tista, measures about 1,000 sq. metres. The town of Dārjiling is supplied with water from 26 springs in the Senchal catchment area which collects in a large artificial lake constructed by Thos. Kenav, the first Engineer attached to the Dārjiling Municipality. There are a few ox-bow lakes along the Mechi and the Chenga, all of them occurring to the south of 26° 35' N latitude and west of 88° 15' E. longitude.

Snow-fields, glaciers, etc.

The view of the perpetual snows from Dārjiling town is regarded by many as unparalleled in the world. The mighty Kānchenjunga (28,146 feet or 8,578.9 metres) flanked by a series of snow-covered peaks presents an unforgettable sight. The snowy range comprise at least 12 peaks rising above 20,000 feet (6,096 metres) and occupying nearly a quarter of the horizon. In winter when the mountains are covered with snow down to 8,000 feet (2,438.4 metres), this white ridge subtends an angle of 160° to the viewer and covers about half the horizon.

Sandakphu and Phalut are the only two places in the district which experience regular snowfall during winter. Elsewhere at high altitudes (i.e., above 7,000 feet or 2,133.6 metres) there are occasional light snowfalls in January and February. "It seldom lies on the ground for more than a few hours, except in places sheltered from the sun ; but in January 1883 it lay on the ground for 10 days, and in February 1887 for three weeks and more on the higher ranges near Darjeeling. From the accounts of early travellers it would seem that in Darjeeling itself snow was more frequent formerly. In February 1829, when General Lloyd first visited the place, snow fell for three successive days in quantities sufficient to cover Darjeeling and the whole of the surrounding heights ; and when he revisited it again in January 1837, snow covered the ground to the depth of a foot or more, some of it

¹ E. C. Doocy—*Darjeeling Past and Present*, Calcutta, 1916. pp. 127-8.

remaining unfrozen for over a week."¹ There was a particularly heavy fall in Dārjiling town on 7th March 1913.

In the hard rock area, groundwater circulates through joints, fissures and near the surface of weathered mantle. Hence the chances of large accumulations of water in such areas are very remote. Because of the highly pervious nature of deposits in the Bhabar belt,² the re-charging water percolates down rapidly. The water table, therefore, occurs comparatively lower down. In the Terai belt, groundwater may be encountered under artesian conditions. In the alluvial tract, saturated zones capable of yielding groundwater are likely to occur. Test wells were drilled near Salbāri (P.S. Kharibāri) and Padajole, where the static water levels were found to be 2.74 and 3.81 metres respectively below ground level.

Groundwater

The area lying to the south of the foot-hills is underlain by a piedmont type of alluvial material (recent to pleistocene) ranging from fine sands to the coarsest pebbles and even boulders of variable thickness. Groundwater occurs under water table conditions and the water level in shallow open wells generally varies from 3 to 4 metres below ground level. During summer, recession of water level is very rapid often going down to depths of 10 metres.

The available geohydrological information indicates that all areas north of the Siliguri-Bāghdogra-Naksalbāri Road, for a distance of about 10 km. are suitable for moderate-scale groundwater development through tube-wells reaching depths of 150 to 200 metres.

Being situated on highly metamorphosed rocks with little or no permeability and in an area having very steep topographic gradients, no possibility of extracting groundwater exists in Dārjiling town proper and other areas of higher elevation. At such places the only way to procure water is to dam uphill streams or to pump water from others flowing at lower altitudes.³

Geological investigations in Dārjiling and the adjoining regions began in the middle of the last century. J. D. Hooker, in 1854, reported the geological findings of his extensive travels spread over two years (1848-49). He traced the regional domal picture of the gneisses and observed the overlying sedimentary bedding. In 1874, F. R. Mallet also gave an excellent account. Following P. N. Bose, who investigated the mineral resources of Sikkim, Garwood produced an admirable paper accompanied by the first general map. A. Gansser writes : "VonLoczy published

GEOLOGY

¹ L. S. S. O'Malley—op. cit. p. 16.

² The Bhabar belt is a fairly steep gravel talus slope immediately below the abruptly rising mountains in which all but the larger streams lose themselves, seeping out lower down in the marshy and jungly Terai strip.

³ Source : Geological Survey of India.

a geological section from Darjeeling to Kangchendzonga (1907) which he observed as long ago as 1878." Gansser traced the surveys in connection with climbing expeditions of G. Dyhrenfurth (1931) in north-west Sikkim and of L.R. Wager (1934 and 1939) in northern Sikkim and adjoining southern Tibet while travelling to and from Everest. J. B. Auden has also discussed the problems of the Dalings and Dārjiling gneisses. A. Heim and A. Gansser visited the Tista valley and made a traverse to Gangtok. New mapping by the Geological Survey of India is being carried out in Dārjiling since 1950 but no comprehensive report has been published so far. S. K. Ray has carried out valuable work on the metamorphism of the rocks of Dārjiling area. A. M. N. Ghosh has carried out detailed geological mapping in parts of the Dārjiling Himalayas. Lately, Auden (1956) and others of the Geological Survey of India have examined the Tista gorge, especially near its junction with the Giel Khola, in connection with the proposed high dam on the river. The Kālimpong and Bhutān Duārs were cursorily investigated by H. H. Godwin Austen, Mallet (1874), G. E. Pilgrim and A. Lahiri. Various problems of landslides and hillside stability in the Dārjiling Himālayas have been studied by P. C. Hazra, K. K. Dutta, S. P. Nautiyal, G. N. Dutt and M. S. Jain.

Geological antiquity

The present configuration and geomorphology of Dārjiling district reveals its geological history. The key to the past (some 40 million years ago) lies mainly in the folded structure which was outlined during the Tertiary Period, on the site of an ancient sea or geosyncline stretching between the Tibetan highland and the South Indian massif and termed Tethys, that had accumulated sediments from both sides of different geological ages. The mountains are made up of folded rocks piled one over another by a series of north-south horizontal compressions and tangential thrusts which folded the strata on the sea-floor and caused their vertical upheaval by stages. Rocks of Peninsular India which extended up to the Tethys have also been folded and metamorphosed. Around the middle of the Eocene, an era of earth-movements set in which not only altered the old geography of the district but also that of the entire Indian peninsula. Two great events of geodynamics stand out prominently in these readjustments: one, the final breaking up of the old Gondwana by submergence of large segments of it underneath the sea which resulted in the separation and drifting away of Australia and Malay Archipelago from eastern India; the other, the uplift of the Tethyan geosynclinal tract of sea deposits to the north into the lofty chain of the Himālayas. The Pre-Cambrians or the crystalline basement of the Himālayas belong entirely to what was originally the northern border of India built up by the metamorphosed rocks of the Aravallis. In Dārjiling they are called the Dārjiling gneiss and Daling series. Thus the geological antiquity of the district can be traced back to the latest pre-Cambrian and earliest Cambrian.

The pile of marine sediments that was accumulating on the border of the Himālayas and in Tibet since the Permian Period began to upheave by a slow secular rise of the ocean floor. From mid-Eocene to the end of the Tertiary, this upheaval continued, in several intermittent phases, each separated by long periods of time, till on the site of the Mesozoic sea was reared the greatest and loftiest chain of mountains in the world, the building of which was initiated by tangential compression of the crust while the *sial* layer was sharply downbuckled into a syncline into which ultrabasic rocks were intruded due to a vertical pressure.

The tightening of the limbs resulted in the intense crumpling and squeezing out of the sedimentary material which was then thrust over on either side. The sediments of the synclines on both sides of the downbuckle were also stripped and they came up against the overthrusting sediments in consequence of the crust moving inwards and downwards to form the downbuckle. In the Himālayas the period of downfolding of the crust may be dated as Upper Cretaceous. As compression increased in the geosyncline, uplift of the sediments ensued. The lower portion of downfolded *sial* began to melt at depth and was so squeezed out as to form intrusive masses of granite along the axis of the newly formed mountain during mid-Miocene. The succession of mighty ranges one behind the other, the great magnitude of the thrust sheets (nappes) and the violent disarray of the rocks, all point to a tremendous shortening of the crust in a direction at right angles to the Himālayan arc for hundreds of miles.

"There appear to have been three important phases of the upheaval of this mountain system. The first of these was post-Nummulitic, i.e., towards the end of the Eocene, culminating in the Oligocene; this ridged up the central axis of ancient sedimentary and crystalline rocks. It was apparently followed by a movement of greater intensity about the middle of the Miocene. The most important phase elevated the central part of the range together with the outlying zone of Siwālik deposits into the vast range of mountains which have since been reduced by denudation to form the present Himālayas. This last stage was mainly of post-Pliocene age, later than the deposition of the greater part of the Siwāliks, and did not cease till after the middle of the Pleistocene. There is some proof that the elevatory movement has not entirely disappeared even within recent times."¹

Geologists and geodesists are still engaged in exploring the details of the origin of the Himālayan rocks, the nature of the bed rock on which they were laid, the magnitude of the thrust which gave rise to the lofty peaks and ranges and the nature of support this colossal rampart has to invoke in order to balance it along with other parts of the continent. Geophysicists like Airy and

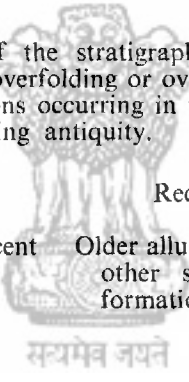
¹ D. N. Wadia—*Geology of India*. London, 1957. p. 307.

Pratt hold that high-fold mountains of the world are like 'floating icebergs' on a viscous or potentially liquid substratum and that the Himālayas are no exception.

**Geological
formations of the
district**

Geologically, the district may be divided into four tracts, which are, from north to south, the hard-rock area, the Bhabar belt, the Terai belt and the alluvial plains. In the hard-rock region, the southern portion is covered with sedimentary rocks while the northern part is composed of metamorphic rocks. The Bhabar belt comprises rock-fragments, big boulders and fine-grained clastics derived from the hard-rock area and is characterised by rather steep slopes, bouldery surfaces and forests of tall trees. The Terai belt is the zone of rejected recharge and, as such, has developed swampy condition and is composed mostly of coarse granular materials alternating with finer clastics. The alluvium consists of a succession of layers of sand, silt and clay with occasional gravel beds and lenses of peaty organic matter. The thickness of the alluvium is variable, but it is supposed to increase towards the south.

The superposition of the stratigraphical units found in the district is the result of overfolding or overthrust of the mountains. The geological formations occurring in the area are shown below in an order of increasing antiquity.

Recent	Recent alluvia
Pleistocene and Sub-Recent	Older alluvium, boulder beds and other sands and gravels (drift formation)
	
Miocene and Pliocene (Siwāliks)	Upper Tertiary sandstones, mudstones, shales and pebble beds within bands of limestone and lignite
FAULT CONTACT	
Upper Paleozoic or Permian (Damuda series—of Lower Gondwana)	Hard and soft sandstones, quartzites, carbonaceous shales, slates, limestones and semi-anthracitic coal with basic intrusives
THRUST FAULT ?	
Paleozoic (Pre-Cambrian?)	Buxa series of slates, schists, quartzites and dolomites as a narrow band

THRUST FAULT OF NAPPE OUTLIER

Archaeans (Daling and
Dārjiling Series)

Dārjiling gneiss, schists, slates
and phyllites with bands of
quartzites and foliated granites.

The Archaeans are represented by exhumed unfossiliferous Dalings which were thrown south in a gigantic recumbent fold in Pliocene-Pleistocene times during the 4th phase of the Himālayan orogenic movement of Post-Miocene periods. Wadia suggested in 1938 that the schistose Dalings overlying the Gondwanas may represent the nappe zone. Thrusting of sheet of "the reversed Himālayan Series (Damuda—Dalings)" on Tertiary front ranges is envisaged in describing 'floods' of the schistose Dalings through gaps eroded out in Siwālik front hills. Thrusting of Dalings over the Gondwanas have also been noticed in the Tista valley. The invariable occurrence of the Daling (slates and phyllites) in anticlinal valleys plunging north and of the Dārjiling gneiss of high grade metamorphism on synclinal hills in between the Daling valleys has been taken to suggest cross-folding, produced by warping up of the sediments into east-west running major folds, pushed and thrust forward (southwards) over and against positive relief features (i.e., hills) on the geosynclinal foreland. A recumbent nappe-like folded structure with roots in far north was observed by Von Loczy during his traverses in 1878. This was perhaps the first instance of an application of the nappe theory in the Himālayas. Suess discussed the Dārjiling gneisses and regarded nappism as a solution for many of the Himālayan puzzles. The tectonic wave came right in the forefront burying the Siwāliks and flowing through the gaps. Erosion has exposed the median limb of para-autochthonous zone, which may have experienced a slow uplift during Pleistocene or even Recent.

The Dalings (a term coined by Mallet) comprise mica-schist, greenish fissile slate and phyllite with bands of quartzite. They are well developed all along lower and middle course of the Tista valley, especially between Kālījhora and Rangpo and form the long core of the domal uplift running north-south for more than 50 km. and dominating the Sikkim area. This regionally simple picture is complicated by local disturbances. Garnetiferous mica-schists and phyllites of the Daling Series are well developed in the area around Kālīmping along Kālīmping-Takdah Road, Kālīmping-Siliguri Road and Kālīmping-Pedong Road. The slates belonging to the Daling Series include occasional bands of quartzite. The most impressive geological feature is the progressively increasing metamorphism of the Dalings upwards. As one ascends the hills from the bottom of the Tista river, the clay slates are found to pass, more or less gradually, through mica-schist to gneiss, known as the Dārjiling Gneiss. Owing to the monotonous and rather constant lithology of the Dalings, the gradual increase in metamorphism is particularly well displayed here offering a classic

Archaea

instance of inverted metamorphism. The Dārjiling Gneiss occupies the greater part of the district including Dārjiling town. Along the eastern and western borders, the gneisses begin at approximately 3,281 feet (1,000 metres) above sea level while in the central part hills reaching over 9,843 feet (3,000 metres) still consist of Daling slates.

The following stratigraphical groups have been observed in the district : (1) coarse micaceous Dārjiling gneiss, (2) flaggy garnetiferous mica-schist, (3) (a) carbonaceous mica-schists and garnet-rich mica-schists with local calc-schists, (b) golden and silver coloured mica-schists with quartzites, (c) greywacke-schists and (d) slates, with occasional quartzites, quartz-schists and greywacke-schists.

The Gondwanas overlie younger Tertiary sandstones and shales. Sub-Recent and Recent sand and gravel occur along the river valley covering some of the above. Excepting the slates and the greywacke-schists, which form elbow-bend outcrop along the Tindharia-Kāli Jhora front and the Tista Valley, the other beds run in sinuous belts of outcrop trending roughly north-northeast to south-southwest through Gayābāri, Mana, Mangpu, Rangli and Pashok hills. The coarse Dārjiling gneiss forms a broad belt far outsizeing the outcrops of the other rock-groups. The dip is always towards the hills, northwesterly in the south ; between westerly and northwesterly in the Tista Valley and the eastern slopes of Takdah and Mangpu hills and, lastly, easterly in the western slopes of the Kālimpong hills. The angle varies from 30°-50°. The dip has a northwesterly tendency to the west of the Tista and northeasterly to the east of it, indicating a northward pitching anti-clinal structure along the valley of the Tista.

The Gondwana sandstones are separated from the slates and phyllites of the Dalings by a zone of thrusting and rock-disturbance, both the formations attaining a high, almost vertical dip, as near Kāli Jhora. The Gondwana rocks are appreciably metamorphosed here, a fact which raises doubt as to where precisely the boundary line between it and the Dalings should be drawn.

The slate group overlies the Gondwanas forming a belt on both sides of the Tista river and is overlain by greywacke-schists. The latter runs in a wide belt across Gayābāri, Sitong, lower Mangpu, Bara Giel, Māngwa and Pashok hills, and then bends eastward to Kālimpong. This bending of the outcrop is due to east-west aligned anticlinal dips pitching to the north.

The greywacke-schists are distinguished particularly by small grains of augen feldspar in a massive or a very closely banded rather quartzose rock. They often include intercalated lenticles and discontinuous bands of epidiorite. It is remarkable that these epidiorites have not been observed within the slate group

just as the micalamprophyres are restricted to the Gondwanas, Near the upper limit, the greywacke-schists present in the field the appearance of sheared rocks. The occurrence of epidiorites in crystalline schists is probably due to dynamic metamorphism of basic igneous rocks containing plagioclase rich in lime.

Near Pashok, Giel, Mana, Gayābāri, Kālimpong and Algara, these schists are also impregnated with abundant pegmatite material carrying tourmaline at the periphery. Under the microscope there is, however, no evidence of crushing in these rocks, a fact which may be explained as due to a recrystallisation effect following the influx of the pegmatitic fluids along the zone of shearing. There thus seems to be a belt of shearing approximately near the upper limit of the greywacke-schists which transgresses stratigraphical boundaries and encroaches upon the higher group of golden and silvery mica-schists and the carbonaceous mica-schists. The latter also presents a sheared appearance at many places.

The major shear belt of Pashok, Giel, Mangpu, Mana, etc., is apparently the lower limit of pegmatite injection into the rocks of these hills as pegmatites are not found further downhill, although they abound in rocks higher up. Hydrothermal quartz accompanying copper ore is occasionally found locally even in low altitudes and widespread formation of apatite and tourmaline is also suspected. In the golden and silvery mica-schists, beds of quartzite often attain significant thickness. The schists are fine-grained with almost inseparable flakes of mica.

The next higher group of rocks consists of carbonaceous mica-schists and garnet-rich mica-schists. Four bands of graphitic schists occur frequently for about 10 miles. The persistent nature of the carbonaceous mica-schists suggests their aqueous origin. The carbon is partly graphitic.

Flaggy garnetiferous mica-schists and quartzites come next in order of superposition and they constitute beds of small thickness giving place rather abruptly to the typical micaceous well-foliated coarse-grained Dārjiling gneiss. Garnet, sillimanite and kyanite are important accessory minerals observed even in hand specimens. Staurolite and corundum occur occasionally.

The gneiss is always well-foliated, intensely folded and crumpled. It is highly micaceous and is composed of colourless or grey quartz, white opaque feldspar, muscovite and biotite. It varies, in texture from a fine-grained to moderately coarse rock, lenticular layers of different degrees of coarseness being commonly interbanded. The accessory minerals present are kyanite, sillimanite and garnet, the latter is, at places, disseminated through the mica-schist in coarse crystals of considerable size and is prized as a gem. From Kurseong to Dārjiling the gneiss is continuous.

The dips are uncertain and irregular but are, on the whole, northerly near Kurseong and southerly near Dārjiling. The gneisses are also met with in traverses along Dārjiling-Ghum-Sukhiapokhri Road, Sukhiapokhri-Manibhanjan-Tanglu-Sandakphu-Phalut Road and along Phalut-Rammam-Rimbik-Jhepi-Pulbazar-Dārjiling Road. Typical succession of the sillimanite-kyanite-garnet-metamorphic zones among the gneisses is well seen in some of these traverses. At places the gneisses are traversed by numerous veins of quartz, pegmatite and aplite. Thin bands and lenses of carbonaceous matter, usually graphitic in appearance are also found in the gneisses.

Pre-Cambrian

Slates, schists and quartzites belonging to the Buxa Series occur in a narrow strip in the Mo Chu area, making their appearance between the Dalings to the north and the Gondwanas to the south.¹

Metamorphic phases

From the above summary of the Pre-Cambrian and Archaean geology, a gradual change from non or epimetamorphic Dalings states to meso-schists and then to kata-metamorphic Dārjiling gneisses can be observed. Gansser observed that these alterations are not influenced by any appreciable amount of introduced matter, but can be explained by increasing temperature and stress alone. Heim and Gansser have classified the regional metamorphic picture into three sections from bottom to top, namely, Daling schists, garnetiferous mica-schists and Dārjiling gneiss.

Daling schists

In the lower reaches of the Tista, the deepest Daling outcrops consist of greenish caly slates alternating with greenish sandy quartzites. Upwards are found chlorite-phyllites, sericite-chlorite schists and sericite-chlorite quartzites.² Rutile³ can be locally enriched in the quartzites. Small quantities of biotites occur together with some epidote, leading to sericite-chlorite-biotite-epidote, schists. Some of the chlorite has developed from the biotite, indicating local diaphtoritic changes although the bulk of the lowest grade Dalings is not derived from biotite.

The biotites are mostly greenish pleochroic porphyroblasts and not detrital flakes, and indicate a gradual change from an epi to a meso-metamorphic phase. It is not yet ascertained whether the chloritoid zones, observed during the recent investigations of the Dārjiling region by the staff of the Geological Survey, conform to the regional metamorphic zones or whether the distribution of chloritoid in certain areas is in complete discordance with the pattern of the regional metamorphism of the area.

¹ Source : Geological Survey of India.

² The chlorite group takes its name from the fact that a large part of the minerals included in it are characterized by the green colour common with silicates in which ferrous iron is prominent.

³ Rutile is a source of titanium and 'rutilated quartz' is commonly known as Venus hair-stone.

The next metamorphic group begins with the formation of garnets, which, in the more quartzitic zones form net-like grain aggregates. In the argillaceous horizons muscovite and biotite increase and the garnets are more idiomorphic. With the chlorite, the green colour of the Dalings has disappeared. We distinguish garnetiferous muscovite-biotite quartzites and garnet-muscovite-biotite schists. The biotite is now brown and differs from the green one of the lower section. Increase in metamorphism is often indicated by kyanite-staurolite-garnet-two-mica schists. They represent the classical *meso* grade, combined with some stress effect. Locally kyanite can be enriched in quartz veins forming up to 10 cm. long crystals.

Garnetiferous
mica schists

According to Gansser: "Gradually feldspars and layers of quartz appear which give the often intensely subfolded rocks a banded appearance (a typical occurrence at Murti river valley). Most of the feldspars are acid plagioclases, while orthoclase is generally subordinate. The more quartzitic rocks have been altered to garnetiferous two-mica psammite gneisses, with a predominance of biotite over the muscovite. The plagioclase is mostly albite-oligoclase or oligoclase-andesine. Gradually the muscovite disappears and garnetiferous biotite-psammite gneisses dominate. More argillaceous layers are metamorphosed to sillimanite-biotite gneiss, with or without some garnets. Here orthoclase is represented, together with some albite. The sillimanite can be enriched in layers, changing the granoblastic texture into a fibroblastic one. Locally, sillimanite forms gliding planes with silky shining surfaces. The sillimanite gneisses represent the typical *kata* phase. In extreme cases, the gneisses can become further mobilized, with locally granitized zones, leading to muscovite-biotite-granite gneisses rich in orthoclase and microcline with some albite."

Darjiling gneisses

The foregoing has shown that a gradual increase from epi-, over meso- to the kata-metamorphic phase can be observed. Each phase has its typical minerals, which have been formed under the prevailing temperature and stress conditions without the introduction of foreign agents. This fact seems rather important and has been confirmed by comparative chemical analyses. The result obtained and observed for the argillaceous facies are tabulated as follows :

METAMORPHIC PHASE*	ZONE MINERAL	REPRESENTATIVE ROCK TYPES
Epi phase	Chlorite-sericite (green biotite)	Chlorite phyllite Chlorite-sericite schists Chlorite-biotite-sericite schists

* The old classical subdivision into *Epi*, *Meso* and *Kata* metamorphic phases is preferred to a division into mineral facies, since insufficient petrographic data exist to allow a workable sequence of facies minerals in the Himalayas.

METAMORPHIC PHASE	ZONE MINERAL	REPRESENTATIVE ROCK TYPES
Meso phase	Brown biotite, muscovite Staurolite, Kya- nite, garnets	Garnet-biotite-muscovite schists Garnet-biotite schists Garnet-kyanite-staurolite-two- mica schists
Kata phase	Sillimanite	(Garnet) Sillimanite-biotite gneisses

Pegmatites and aplites are rather frequent in the Dārjiling gneisses. Some already occur in the garnetiferous mica-schists. Mostly they are muscovite-tourmaline pegmatites with rare biotite (typical occurrence at Ghum). Basic rocks are developed as sills, and are less frequent than the acid dykes. Some are quartz-actinolite amphibolites, others biotite amphibolites. Quite surprising is the presence of an anortho-clase-bearing biotite amphibolite. Of special interest are *lime-silicate inclusions* or concretions in the Dārjiling gneisses. Not observed in the lower grade phases of this area, they seem restricted to the gneisses, and have been observed in similar gneisses in Central Bhutān and elsewhere. The inclusions usually form lenticular bodies, with curiously bent tail-ends...(typical lime-silicate lense with folded tail-end occur in the Murti river valley). Free lime is rarely present, but a concentric arrangement of a characteristic mineral paragenesis can be observed. From the host rock to the core of the concretion Gansser noted : quartz, oligoclase-andesine, biotite, garnet (country rock) ; quartz, little andesine, little biotite, garnet, titanite (contact) ; bytownite, green hornblende, garnet, quartz, titanite (contact) ; bytownite, garnet, diopside, quartz, titanite and bytownite, quartz, fine reticular garnet (titanite). Introduced quartz generally surrounds garnets and bytownites. Some other concretions have a core of pure red garnet with grains up to 2 cm. The latter show characteristic sieve and drop-like inclusion of magnetite and quartz often concentrically arranged, similar to garnet-bearing schists and gneisses in the central thrust of the Kumaon hills. More basic inclusions or concretions have been observed in the form of diopside-bearing garnet hornblende. They are often more lenticular and can form actual layers.

The above regional picture fits only in a very general way. With intensified investigations, more discrepancies will be noted, as the presence of Damudas within the Dalings area has already shown. Even during Gansser's investigations in 1936 it was evident that not only gneisses of the Dārjiling type were present; within the Dalings of the middle Tista Valley he observed a 100m. thick lens of a uniform two-mica-augen gneiss rich in microcline which forms most of the augens. Marginally the gneiss is strongly mylonitized. The biotite is altered to chlorite, the muscovite to sericite. Green phyllonitic layers limit the gneiss body towards the Dalings. The strongly diaphoritic gneiss seems foreign to

the Daling environment, and may represent an older, tectonically emplaced gneiss, unrelated to the Dārjiling type. The presence of abnormal dips in the wider Dārjiling gneisses as well as intercalations of quartzites and schists, recognized by Garwood as early as 1903, indicate further complications. Comparing the observations of this area with those of other areas of the Himālayas, we note that Dārjiling type gneisses are very widespread, mostly in regions where inverted metamorphism takes place in argillaceous formations. We shall note similar rocks, for instance, in the Lower Himālayas of Bhutān which match the Dārjiling gneisses in every detail.

The low grade zones of the Tindharia-Tista tract are singularly free from igneous effect ; they bear clear impress of low regional metamorphism. But igneous activity is evident in the highest zones, namely in the kyanite zone and more particularly in the sillimanite zone. The latter is by and large a zone of dynamothermal metamorphism induced by fold-movements effected at the same time by penetration of pegmatitic hydrothermal fluids. "It can best be described as a regional-thermo-metamorphic zone," observed S. K. Ray. Curiously enough, as noted also by Wager, true thermal metamorphism seems to be absent in the Dārjiling hills. It is half-way between regional and thermal. Production of sillimanite from biotite in the gneisses and particularly around larger pegmatite lenses (injected) are the only reactions of igneous intrusion. Auden's conception of injection under stress conveys probably the same regional-thermal idea. The presence of kyanite and staurolite, regarded almost universally as stress minerals in crystalline schists, adds weight to the conclusion of regional-thermo-metamorphism in these hills. Progressive metamorphism of crystalline schists, even where the latter are permeated thoroughly with granitic juices, is essentially independent subjacent granitic intrusions ; the latter follows regional metamorphism. Although sillimanite has been produced clearly from biotite in contact with pegmatite injections in Dārjiling hills, profuse pegmatitisation and tourmalinisation along the shear zone have not been able to break the general metamorphic sequence and induce production of sillimanite in the garnet or kyanite zones.

The Damuda sandstones and shales with associated discontinuous flaky coal beds and thin limestone bands constitute a narrow belt between the Daling Series in the north and the Siwāliks in the south, extending in a roughly E-W direction from the Jaldhākā in the east to the Bālāsān in the west with a break between the Chel and the Murti rivers. The Siwāliks are steeply overthrust by these lower Gondwana formations. The thrust zone is generally badly exposed and it coincides with the well-known Main Boundary Fault, which extends all along the Himālayas. In the Rangit valley 30 km. north of the Daling thrust, Damuda outcrops covering an area of over 100 sq. km. have been noticed mostly

Permian

within Sikkim territory. As seen in the Tista gorge, the maximum width of the Damudas is about 2.5 km. and it thins both to the east and west of the Tista. The total thickness does not seem to exceed 100 m. The sandstones are micaceous, feldspathic and brownish. Very often the rocks are weathered. They are characteristic coal-bearing detrital rocks and contain plant impressions (fossils) such as *Vertebraria*, *Glossopteria* and *Schizoneura*. Some 12 coal seams are met with, suggesting a kind of cyclic sedimentation. Like all other rock-groups, the Damudas have undergone great crushing and disturbance. It has been suggested that most of the section is inverted which is supported by the fact that sandstones frequently top the coal seams, while carbonaceous shales lie below them. Although subject to many minor contortions, they dip as a whole towards NNW, generally at high angles varying from 30° to 90°. Along with the disturbance a great change in the lithological characters of the rocks is also observed. Frequently, the sandstones have been converted into quartzites, the shales into splintery slates and the carbonaceous shales into carbonaceous or even graphitic schists, while the coal, which is highly seared, has lost a large proportion of its volatile matter and has frequently been altered to anthracite. The best coal seams measure about 3 m. in thickness (Tindharia region) with sandstones on top and shales below. In the same region, Fox found a boulder bed which may be glacial. Near by he observed the characteristic mica peridotite intrusives which, in places, have converted the coal to natural coke. The limestone bands found west of the Tista up to Rangtong railway station and in the Chun Khola valley east of Tista, are thin and not continuous. Because of the highly tectonized aspect of the Dārjiling Damudas, it is difficult to compare these sections with the well-known Damudas of peninsular India. The presence of boulder beds suggests Lower Damudas or the Barakar formation, while the flora and lithology of the coal-bearing layers rather point to the Upper Damudas or the Rāniganj formation.

The epigenetic changes of the Damudas (i.e., later diagenesis of already consolidated Lower Gondwana rocks) are less pronounced around Tindharia than around Kālī Jhora, that is, the rocks are less altered against their dip direction. Alterations are pronounced in a thin fringe of rocks bordering the Daling series which become less distinct away from this region.

The Lower Gondwanas and the Siwāliks (Tertiaries) differ in all sedimentological aspects, though there is no structural discontinuity between them. The most interesting feature is the inversion of beds due to which the Gondwanas apparently overlie the Tertiaries. Both groups dip towards NNW and their marginal contact is obscure. There is a wide variation in the joint pattern of the two units. The Gondwanas are composed of intercalations of shale, sandstone, coal and limestone and the grains of all the above rocks are matured bimodal, rounded with high sphericity

and show a long travel before deposition. "The Tertiaries are composed of immature greywacke and the grains are unimodal, poorly sorted, sub-angular and shows the effect of quick deposition and little transportation. Study of the type of clastic quartz and heavy minerals shows that the Gondwanas have been derived from granitic and pegmatitic source, while the Tertiaries have been derived from the metamorphic and shear zone rocks."¹

The Siwāliks appear north of Siliguri and have been traced as a belt, irregularly interrupted by alluvium and forethrust older rocks. Extending from the Mechi, the Siwālik hills can be followed as far as 20 km. east of the Tista, where they are missing for some 10 km. but occur again only to disappear below the advanced spur of the Lower Himālayas near the Jalbhākā. Their maximum width is about 5 km. on either side of the Tista. The deepest outcrops forming the southern margin of the Siwālik hills consist of bluish grey nodular marls and clays with micaceous fine-grained sandstones. Upwards they grade into a section of 1,700 m. of soft massive sandstones, mudstones and shales with thin bands of limestone and lignite, and occasionally conglomerate layers where quartzite pebbles predominate. The most prominent variety of sandstone, first investigated by Mallet in 1874, is a rather soft, highly feldspathic and slightly micaceous medium-grained rock of a pepper-and-salt colour (white with black specks) or are true greywackes with poorly developed schistosity and are highly puckered. Effect of diagenesis is distinct with the alteration of feldspar to Kaolin, replacement of almost all types of minerals by calcite and mica, presence of albite and bounding of quartz gains by mica and sericite. Other sandstones are of a light buff colour and vary in texture. Grey shales often contain carbonaceous matter, locally enriched into a soft, flaky coal not unlike the older Gondwana coal horizons. Pebbles appearing in sandstones rarely exceed the size of a fist. The sandstones are usually thick, often very massively bedded (according to Mallet, the average thickness is 3,000 m.) and frequently characterized by current-bedding. The sandstones carrying lenticles of coal, mudstones and pebble-beds are well exposed along parts of Siliguri-Kālimpong and Siliguri-Dārjiling roads. They dip at 20° to 80° towards NNW, N or NNE. Gondwana type coal-bearing sandstones outcrop further north, but the Main Boundary Fault is not exposed. This clastic section, over 2,000 m. thick, forms the north flank of a normal anticline, the core of which is just exposed at its southernmost outcrop. The exposed section could be placed into the Middle to Upper Siwāliks. Yellow sandstones are seen in the Lish river section. Boulders of fossiliferous limestones and calcareous shales are found in a small

Miocene

¹ B. Mukherjee and A. Ghosh—'Petrographic studies of the Lower Gondwana and Tertiary sediments around Pankhabari, Darjeeling District' in *Proceedings of the 55th Indian Science Congress, Part III, Abstracts*, Calcutta, 1968. p. 207.

rivulet near its confluence with the Lish and distinct leaf impressions of fossil flora and fresh water *Planorbis* have been identified. Fossil plant stems, generally more or less flattened by pressure, are frequent in sandstones some of them 30 cm. or so in diameter and 3 to 4.5 metres long. In most of them the original woody part is replaced by carbonaceous sandstone while the bark is represented by brittle jetty lignite. There is a strong ferruginous band included in the sandstones near Lohārgarh where the outcrop runs along the south brow of the hill for a length of about 1.6 km. from east to west.

Sub-Recent and Recent

High level terraces of alluvium and gravel beds constitute a part of the southern plains known as the Terai. The hill wash, that is, alluvial fan debris consisting of gravels and coarse sands, occurs along the foot of the Dārjiling Himālaya. Rivers and streams which have cut gorges have also given rise to terraces across the undulating and low plateau-like drift deposits thereby forming a typical piedmont landscape overlooking and often merging with the plains to the south. Between the Chel and the Jaldhākā there are enormous boulder deposits, which become finer in composition towards the south, eventually passing into ordinary alluvium of the plains.

The fact that these huge boulder beds unconformably overlie the northward dipping Siwālik (Pliocene-Pleistocene) strata at the base of the Himālayas, indicates that the boulder formation originated sometime in the Pleistocene after the uplift, tilting and partial denudation of the Siwāliks. It is thus a certainty that during the Pleistocene, when Sikkim and northern Bhutān were experiencing widespread glaciation, Kālimpong and central Bhutān were going through periglacial conditions. During this period, Jaldhākā, the main stream of the region, brought down a great volume of glacial morainic material from its upper reaches while minor hill streams like Chel, Neora, Murti etc. were choked with periglacial debris and solifluction materials which were eventually flushed away and re-deposited as huge coalescing fans at their outlets thus forming the extensive boulder beds. Between the rivers Neora and Jaldhākā, the boulder beds overlie the patch of Upper Tertiary beds while in the areas where the Tertiary rocks have been presumably eroded away, the boulder drifts have been found to overlie directly over the low-grade metamorphics of Dalings.¹ The abundance of river terraces, their tectonic displacements and their coincidence with the pronounced gap in the

¹ N. R. Kar—'Investigations on a Piedmont Drift Deposit in the Foot-hills of the Eastern Himalayas and its Glacial and Periglacial Significance' in *Biuletyn Peryglacjalny*, nr 11 Lodz, 1962, pp. 215-16.

Siwālik deposits have attracted the attention of geographers and geologists for a century.¹

The soil of the uplands is usually red and gritty while that of the plains is dark and more fertile. Along the banks of the Tista, silt or silty loam predominates. Red and yellow soils have developed on the gneisses and schists in the higher slopes of the Dārjiling Himālaya. The greater portion of the hill area lies on Dārjiling gneiss which most commonly decomposes into a stiff reddish loam but may also produce almost pure sand or a stiff red clay. The colour of the red soil, derived as it is by meteoric weathering from gneisses and schists, is due more to wide diffusion than to high proportion of iron content. This type of soil is mainly siliceous and aluminous, with free quartz as sand. It is usually poor in lime, magnesia, iron-oxide, phosphorus and nitrogen, but fairly rich in potash, some areas being quite rich in potassium derived from the muscovite and feldspar of the gneiss. River alluvium is found in the southernmost part of the district. The area bounded by the Mechi in the west and the Mahānandā in the east, and stretching from the southern boundary of the district to about 10 km. north of Siliguri, is entirely covered with alluvium consisting mainly of sands and silts brought down by the streams. The commonest form of alluvial soil in this area is light sandy loam, the fertility of which varies according to its different types. The podzolic soils in the hilly areas are suitable for cultivation of tea. The brick-red coloured clayey-loam soil, which had attracted the notice of the soil-scientists of the Indian Tea Association for many years as the best for tea growing, is found on the surface of the piedmont drift formation.

Soil formation

Parent material variations exert a stronger influence on soil characteristics of the Dārjiling Himālayas than climate or vegetation. Very broadly, the soil on the Siwāliks is pale yellow and coarse in texture ; on the Dalings dark grey and porous ; on the gneisses a brown clay, sometimes plastic, shallow and sticky. The soil on the Gondwanas is generally sandy. Almost everywhere the soil is residual, i.e., derived by the weathering of the underlying rocks. Weathering is selective in the Dārjiling gneiss and proceeds along some susceptible bands, i.e., mica-rich bands in preference to quartzose bands and also along joint and shear planes. As a result blocks of fresh rocks are generally found encircled on all sides by highly weathered rocks of the nature of clay. The impervious clay is found mixed with grains of quartz, feldspar and flakes of mica. This has got an important bearing on the massive landslips as will be seen later.

¹ H. H. Godwin-Austen—'Notes on geological features of the country near foot-hills in Western-Bhootan-Dooars' in *Journal of the Asiatic Society of Bengal*, Vol. 37. Calcutta, 1968.

Mineral wealth
Coal

The district contains valuable mineral deposits. None has so far been exploited successfully. The existence of coal-bearing rocks of Damuda age in this region was first recorded by Hooker in 1849. They occur as a narrow band varying from 200 m. to about a kilometre in width and extending from Pānkhābāri to the vicinity of Dalingkot. This is doubtless the same belt of rocks as is found occurring in the Aka and Daphla hills to the north of the Brahmaputra. Seams of coal are also noticed all along the area from near Bālāsan river in the west to Neora Nala in the east passing through Tindhariā (26°5' : 88°20'), Lish Nala, Ramthi Nala and Lethi Nala as also further east in the Jaldhākā road section. Gondwanas contain workable seams of coal at places, the most important of which are noticed near Lish Nala, Ramthi Nala and Lethi Nala where coal is worked. The band of Gondwana shows much thinning and thickening due to deformation. The coal is flaky semi-anthracitic and often graphitic. It is low in volatiles and high in ash.¹

The first and only attempt to work the coal on a commercial scale was undertaken by a Calcutta firm in 1896. A colliery was established at Daling and until the abandonment of the enterprise in 1900 a total quantity of 7,231 tons of coal was raised.

“The following analyses of the coal have been made in the laboratory of the Geological Survey of India :

	Average of 5 samples	Average of 8 samples
Volatile matter	9.20	22.94
Fixed carbon	70.66	59.56
Ash	20.14	17.42

The unknown, but great thickness of the alluvium and the difficulty which it would present to boring operations, together with the lack of indications for fixing upon the best sites for the holes, have up to the present, deterred speculators from making search for such fields.”

Copper

Local mining of copper was extensive in the district during the last century. The miners made shallow excavations wherever they located chalcopyrite and abandoned them when operations became uneconomical. The collection and processing of the ore were done in the most primitive manner.²

¹ Source : Geological Survey of India.

² For a detailed description of the mining operations, see H. H. Risley and others—*The Gazetteer of Sikkim*. Calcutta, 1894. pp. 63-7.

The following generalizations about the Dārjiling copper ores were made by Mallet : (i) "All the known copper-bearing localities are in the Dalings beds. Some are situated in the transition rocks between the Dalings and the gneiss, but none in the genuine gneiss itself. (ii) The ore in all is copper pyrites, often accompanied by mundic. Sulphate, carbonate and oxide of copper are frequent as results of alteration of the pyrites, but they occur merely in traces. (iii) The ore occurs disseminated through the slates and schists themselves and not in true lodes."¹

It has, however, been observed subsequently that the ores occur also in the gneisses but they are not as rich as those in the Dalings. Valuable lodes of the ore with percentage of copper ranging from 3 to 7, exist in association with compounds of bismuth and antimony, together with ores like pyrrhotite, blende and galena.

In recent times copper ore occurrences at Kālimpong (27°05' N : 88°29' E), Pashok (27°05' N : 88°25' E), Chel river bed near Gorubathan (26°57' N : 88°42' E), a place to the east of Mirik (26°58' N : 88°25' E) and another east-northeast of Mahānadi (26°53' N : 88°19' E) were examined in addition to certain sporadic occurrences of chalcopyrite and pyrite but it was found that modern large-scale exploitation from any of them would be uneconomic.² Ore deposits at Rānihāt, on the western side of Mahānadi near the mouth of Baffupani ; at a place on the east bank of the Tista, due east of Mangpu ; and in the neighbourhood of Samther have also been reported but, according to Dash, their working was unsuccessful.

Graphite occurs as embedded masses in a band of mica schist with a thickness varying from 20 m. to 50 m. running from north of Gayabāri (26°52' N : 88°19' E) on the Dārjiling Hill Cart Road to the west of Pashok (27°05' N : 88°25' E) passing through Mangpu (26°58' N : 88°22' E) as also in the schists of the Rakti valley. It is believed that coal beds at these places have been converted into graphite on account of intense metamorphism.

Graphite

Iron ores, varying from a strong ferruginous clay or brecciated quartzite to an impure brown hematite, are found within the Siwālik sandstones at Lohārgarh in the south-west part of the district (26°47' N : 88°12' E) and, according to old reports, were formerly worked. High grade magnetite and micaceous hematite, free from sulphur and phosphorus, form a band about 20 feet thick at Samalbang about a mile east-southeast of Sikbar to the east of the Tista. This ore is said to have produced iron of the best quality in the past. The Lohārgarh band has a maximum thickness of about 40 metres and the iron content is as low

Iron

¹ F. R. Mallet—'On the Geology and Mineral Resources of the Darjeeling District and the Western Duars' in *Memoirs of the Geological Survey of India, Vol. XI, part I*. Calcutta, 1874-72.

² Source : Geological Survey of India.

as 30 per cent. In the Kālimpong subdivision and in the northern parts of the district, iron occurs chiefly as pyrites in association with chalcopyrite.

Lime

There are three possible sources of lime in the district, namely the dolomite of the Buxa series, the limestone bands in the Tertiary rocks and the calcareous tufa deposited by springs as surface encrustations at numerous places, chiefly at the junction of Gondwana and Tertiary. The tufa is fairly pure and contains over 90 per cent of carbonate of lime. Hooker had observed : "Lime is only known as a stalactitic deposit from various streams, at elevations from 1,000 to 7,000 feet ; one such stream occurs above Punkabaree ; another within the Sinchul range on the great Rungeet river, above the exit of the Rummai ; a third in the great central Himalayan range flowing into the Lachen river. The total absence of any calcareous rock in Sikkim, and the appearance of the deposit in isolated streams at such distant localities, probably indicates a very remote origin in the lime-charged waters.

Construction materials

The district does not possess high class building or ornamental stone but the ordinary varieties used for construction purposes are available in plenty from the Daling beds, which yield coarse slate and quartzite, the harder Tertiary and Gondwana sandstones near the foot of the hills or the common Dārjiling gneiss. The Public Works and the Forest Departments maintain several quarries of road metal for which quartzite and gneiss are commonly used.

Gneiss, which is readily split and dressed into blocks of convenient size, is used for rubble masonry. The well-jointed, fairly hard gneisses from the Sadar and Kurseong subdivisions are used as road metal, railway ballast and concrete aggregate. Hard-banded quartzite, suitable for road metals, occurs at Gidda Pahar near Kurseong.¹ The only suitable road metals lying between Kurseong and Tindharia (26°51' N : 88°20' E) are the quartzites and biotite-quartz granulites. Boulders and gravels of quartzites and other hard rocks are abundant in the stream beds, in the hill wash and in the piedmont drift deposits.

Earthquakes

Within living memory, no major earthquake has been recorded with its epicentre in Dārjiling district. However, as isostatic adjustments are still going on in this orogenic belt, the area is geologically unstable. The Himālayas have not attained their maximum elevation but are still rising. That alterations of level have lately taken place is clear from a number of circumstances. The rivers, especially the Tista, the Jāldhāka and the Bālāsān bear proofs of recent rejuvenation, due to the uplift of their watershed. The frequency and violence of earthquakes in the Himālayas and in the depressed tract lying at their foot, suggest the same inference.

¹ Source : Geological Survey of India.

They indicate that the strata under the Himālayas are in a state of tension and have not yet settled down to their equilibrium plane.

Earthquake shocks experienced in the district have been recorded since 1842. Two sharp shocks, felt on the 27th and 28th February 1849, caused many well-built walls to crack. Commenting on this tremor, Hooker observed : "Earthquakes are frequent all along the Himalaya, and are felt far in Tibet; they are, however, most common towards the eastern and western extremities of India ; owing in the former case to the proximity of the volcanic forces in the Bay of Bengal. Cutch and Scinde, as is well known, have suffered severely on many occasions, and in several of them the motion has been propagated through Afghanistan and Little Tibet, to the heart of Central Asia." Several shocks were felt between March and October in 1863. During the Cāchār Earthquake of 10 January 1869, smart shocks were recorded at Dārjiling, Kurseong, Pānkhabāri and Siliguri. Dārjiling experienced minor tremors between March and August of the same year.

The district was included within the higher isoseismals of the earthquake which, with its focus near Cherrapunji reached Dārjiling within minutes and caused a good deal of destruction. Apart from the collapse of several important buildings in Dārjiling town, the palace of the Raja of Sikkim was destroyed, while several monasteries in that State had either to be rebuilt or very materially repaired. Running parallel with, and at a distance of about 100 yards, and throughout the entire length and east of the railway line from Siliguri to Sara Ghat were to be seen geysers (*fumaroles*) from 50 to 100 yards apart throwing up hot water and sand, their points of exit being marked for many a year by small, dome-shaped mounds of earth and sand.

Cracks appeared in several buildings of Dārjiling town and Kālimpong during the Dhubri earthquake of 3rd July 1930. The Bihār-Nepāl earthquake of 15th January 1934 was, according to Dash, severely felt in the district, the worst affected parts being Dārjiling town and its neighbouring spurs and the railway station at Tindharia. At Dārjiling a number of badly constructed houses totally collapsed. In many buildings cracks formed or walls fell out and bungalows were damaged by the fall of masonry chimneys crashing through roofs. Although the loose nature of the Dārjiling soil is partly responsible for much of the destruction by earthquakes, a noticeable feature of the 1934 earthquake was that, in the area of maximum damage, ferro-concrete structure stood almost unharmed. So also were well-constructed recent buildings of brick or dressed stone. On this occasion, the top layers of the sub-soil on the crest of the Dārjiling ridge and its outlying spurs, mostly on the western side of the town, developed fissures damaging buildings. The station building at Tindharia

was damaged during both the earthquakes of 1897 and 1934. Landslips took place near Tindharia station soon after the earthquake of 1897 and a ground fissure, over 300 yards long, appeared below the station yard in 1934. Kurseong and Kālimpong escaped with minor cracks in buildings but landslips occurred at several places in the Tista valley below Kālimpong. Serious damage to buildings has never been reported from Siliguri, but, during the earthquakes of 1897 and 1934, ground fissures appeared at several places in the submontane tract to the north, near and beyond Sukna, and the Cart Road was much cut up.

Landslips and erosion

As regional geology has a direct bearing on landslips, their causes vary from one locality to another. Heavy monsoon precipitation is, however, the common cause of all these disasters. Dash has given a very systematic account of the landslips in the district: "Scars left by landslides are common features of the landscape in every part of the District. Gravity, in causing slips, is aided by the steepness of slopes and soaking of the mantle rock, essential conditions of instability being lack of support in front and lubrication behind. The parts of the hills usually affected either are composed of soft rocks such as schists, shales and clays or support thick mantles of soil and weathered rocks on steep slopes."

Several of the types into which landslides can be classified are met with in the Dārjiling Himālaya. The simplest is the fall of boulders from steep slopes. Such rock masses are usually separated from the bedrock by a zone of decomposed material which is loosened during heavy rains. Another type, the sliding of rock masses, is quite frequent in the Tista valley between Sivok and Kāli Jhora, where the hills consist of interbedded sandstones and shales inclined at high angles in the same direction as the hill slopes. The scouring of underlying bands of soft shales by rain-water causes the overlying sandstones to slip and slide down the hillsides. The same phenomenon is also observed among the harder gneisses and quartzites when they are fractured and faulted or traversed by highly inclined joint and cleavage planes. A third type, called soil slips, is caused by slow downward movements of soil or unconsolidated material along unprotected hill slopes. This happens frequently in the vicinity of the Cart Road, particularly between Mahānadi and Rangdong, where portions of the road sink from a few inches to several feet. The subsidence generally occurs where a steep embankment has been constructed without sufficient protection on decomposed or soft rocks such as shales, clays or micaceous schists. Elsewhere in the hills, surface waters, percolating through shattered rocks in a crushed zone, sometimes issue as springs at lower levels carrying large quantities of rock particles in suspension. This causes subsidence at the higher levels and slips at the lower. A settlement of this nature was recorded in the faulted area between the two branches of the Kagjhora in Dārjiling, where subsidence at the higher

levels produced serious cracks in the surface soil. In the fourth type, slow downward movements of soil sometimes give place to sudden and violent landslips which may occur on slopes covered with thick soil and weathered rock and may affect hillsides for considerable extents. During his travels in the Lower Himālaya, Joseph Hooker came across several such enormous landslips. "The most prominent effect of the steepness of the valleys," he wrote, "is the prevalence of landslips which sometimes descend for 3,000 feet, carrying devastation along their course : they are much increased in violence and effect by the heavy timber trees which sway forwards, loosen the earth at their roots and give impetus to the mass." Fortunately catastrophic landslips are not frequent in the towns of the district, where, after the disastrous landslips of 24th September 1899 in Dārjiling town, measures have been taken to protect hill-slopes on the lines suggested by an expert Committee appointed by the Government of Bengal.

These violent landslips accompanied by appalling consequences are better dealt with in some details. Dash explains their occurrence in the following way. "The soil-cap is the direct product of the atmospheric decomposition of rocks. There is a transition from the superficial layer of soil formed by the weathering of the rocks near the surface through a zone of decomposed rocks, known as the sub-soil, to the bedrock. The soil-cap is in process of continual growth through chemical action of percolating waters on the bedrock. As the rate of erosion of soil by rain-water is lower on hill slopes covered with vegetation than on bare slopes, thick mantles of soil and other products of rock decay accumulate on wooded slopes. This material can remain stable so long as its angle of safety is greater than the inclination of the slope on which it rests. The formation of a soil-cap does not itself contribute to any increase in the surface slope but its removal from the foot of a hill by streams increases the average slope of the hillside and disturbs the angle of repose of the soil-cap. Consequently, the soil-cap on the upper part of a hillside, when subjected to the undermining and erosive action of a stream, is liable to a slow process of creep with the regular succession of wet and dry seasons. During each monsoon, as a result of the expansion which follows saturation, the soil-cap slowly moves downwards in the direction of least resistance. In the succeeding dry season, the soil contracts on drying and the downward movement is checked. Movements of the soil down the slope continue in this way year after year until conditions of stability are exceeded, when landslips occur to restore equilibrium. The magnitude of a landslide depends on the thickness of the soil-cap, the amount of saturation of the soil, the steepness of the hillslope, the nature of the underlying rocks and the erosive power of the streams and waterfalls in the area.

Virtually all landslips in the district are caused by some or all of the above factors. The appalling landslide of September 1899

which occurred on the eastern side of Dārjiling town was of the violent type and was confined to the soil-cap covering the gneisses that form the Dārjiling ridge. Its immediate cause was heavy rain which drenched the town for three days commencing on 23rd September. The hill slopes with a thick mantle of soil was already in a state of unstable equilibrium and the rain precipitated the catastrophe. As many as 72 lives were lost and the damage to property was extensive.

After this disaster, the Government of Bengal appointed a Committee to enquire into the causes of landslips and suggest preventive measures. The Committee was of the view that instability of the hillsides gradually increased due to progressive absorption of moisture, and the cutting of hill slopes both for natural and artificial needs increased this instability. Defective drainage was also considered an important factor in the absorption of moisture. A detailed geological survey of the Happy Valley and neighbouring hillsides was also undertaken between 1912 and 1914 which confirmed the findings of the Committee and showed with the aid of maps the physical condition of the rocks, the dip of the bedding and foliation, the folds and faults together with minor crack, fissures etc.

There was another major landslide in Dārjiling town in 1950 due mainly to excessive rain. J. B. Auden, one of the investigating geologists, stated that "although capped by soil, the hill-slopes around Darjeeling are too steep to be safe against stormy weather similar to those of 1899 and 1950. But according to him the fresh solid *in situ* rock of the Jalapahar ridge is fairly safe for future construction."¹ As a result of A. M. N. Ghosh's report (1950) which included recommendations for further detailed investigation prior to the adoption of preventive measures, and at the request of the Government of West Bengal, it was decided to include the investigation in the Geological Survey of India field programme for 1950-51. Accordingly, S. P. Nautiyal and K. K. Dutta were deputed by the Director, Geological Survey of India for the investigation. Nautiyal investigated the area on the eastern side of the Tista, while Dutta confined himself to Dārjiling town and the surrounding area down to the Tista to the east and the Rangit to the north. After compilation of these reports, the Government of West Bengal constituted a Committee known as 'The Darjeeling Landslide Committee' to investigate the causes of recurring disasters in the district of Dārjiling and the adjoining areas and suggest remedial measures therefor. In 1955, another survey was undertaken by the G. S. I. in the catchment areas of the Lish, Gish, Chel, Mel, Neora and Rilli rivers in the Kālimpong subdivision when it was found that the debris

¹ *Bulletins of the Geological Survey of India, Series B—Engineering Geology and Groundwater*; No. 15, Part I—*Landslides and Hillside Stability in the Eastern Himalayas*. Delhi, 1966, pp. 9-10.

from the landslides had raised the river beds resulting in floods in certain areas of North Bengal. Subsequent to the 1954 floods an expedition was sent to the source of the Tista river during September-October 1954 to study the nature of the watershed in Sikkim. Another expedition investigated the catchment of the Rangit river in Sikkim. A detailed geo-technical study of the Lish and Ramthi valleys was made in 1957 in connexion with the work of the State Flood Control Board. The relationship between the structural and lithological characters of the different rocks found in the catchment areas and the landslides occurring in each of these were traced by statistical analysis of the slides. Certain observations were made on the geomorphological characteristics of the adjoining valleys of Gish and Chel rivers with a view to focussing attention on the regional pattern of the hillside instability of North Bengal.

Writing on the problem of landslips, Dash observes : "Landslips cannot entirely be prevented but they can be checked by proper protective measures. Turling and afforestation of bare slopes, well-directed and efficient drainage, reduction of the steepness of hillslopes by terracing, outward protection of the soil-cap by means of revetments and buttresses, protection of the harder rock outcrops, systematic quarrying in hillsides and control of the erosive action of streams and waterfalls are some of the measures which give useful protection." As regards Darjiling district in particular he goes on to say : "More serious effects of erosion are to be noticed in the behaviour of certain of the rivers debouching from the hills. The Mechi river bed on the west boundary of the District has been filled and its course deflected by a huge volume of detritus originating in a great landslide in Nepal. The result has been loss of cultivated land on the Darjeeling side of the river and great damage to the Mechi reserved forest through which the river is being deflected."

The widespread landslips occurring in the district in 1950 are best described in the words of A. Mitra : "In June 1950 there occurred the more devastating series of landslides ever throughout the district. Between the 11th and 13th June of that year there was a heavy spell of rain after weeks of dry weather. In three days the rain gauge recorded 32.21" of rain. This resulted in an unprecedented series of bad landslides particularly in the Sadar subdivision ; whole hillsides with buildings, farms and trees came down and several hundreds of people were rendered homeless. The loss of life reported from the district was 127 out of which 100 was in the Sadar subdivision alone. The town was cut off for about 5 days and the Siliguri-Kalimpong Railway line was washed away. Large portions of the Kurseong-Darjeeling Railway track were washed away, and the Darjeeling line was not relaid until late in 1951. The Siliguri-Kalimpong line was closed for ever as the hillside in that region was considered unsafe for railways. The other more important reason for closing down this

line was the discovery that in the upper valleys of Sikkim the lakes which held the Tista had given way during the period as a result of which it was now more difficult than ever to predict the activities of this river, and more so to control the volume of water passing into its bed downstream. A Relief Committee was organised under the patronage of the Governor and prompt steps were taken to restore Darjeeling. Considering the magnitude of the damage inflicted on the district by the landslides of June 1950 and the difficulty of carting up re-building material, restoration work was completed surprisingly quickly and the old Military Road from Kurseong to Ghum *via* Chimney, Bagora and Senchal did a great deal to quicken the pace of recovery. It was a matter of no small satisfaction for the Government that at no time did the town of Darjeeling or any part of the district go without an adequate stock of food, a constant stream of supplies having been kept up in the teeth of great odds."¹

In 1951, K. K. Dutta, Superintending Geologist, carried out a detailed investigation of the slips within the Dārjiling municipal area and on the Cart Road between Siliguri and Dārjiling, the Old Military Road between Pānkhābāri and Ghum, the Forest Road between Ghum and Manibharjan on the Nepal border, the Pashok Road, the Tista Valley Road and the Rangit Road. He opined that while pore-pressure was the immediate cause of slips, the stability of a slope depended primarily upon its inclination and the nature of the structure of material adjoining it. Soil mechanics also played an important role.

The most comprehensive report on the Dārjiling landslips was published by the Geological Survey of India in 1966 from which a comprehensive quotation is worthwhile. "For purposes of description, the slips have been termed 'soil slip', 'debris slip', or 'rock slip', depending on the nature of the material involved in the slip. ... For purposes of description of the soil slips, the corresponding vertical height of the slope between the apex and the lower end of the slip has been termed the 'affected height'. The 'affected height' is naturally related to the radius of the circle, an arc of which demarcates the limit of the line of failure. Similarly the term 'length of slip' has been used to denote the distance between the arms of the parabola along any line of observation. In soil slips the angle of the slip circle at the apex can be easily recorded as the slip face generally remains undisturbed for a long time. This with the angle below gives an idea of the radius of the slip circle, which may be utilised in the determination of the conditions of the soil during the time of failure.

"Rock debris also gets detached from the parent mass along the arc of a circle, but the curvature of the slip face is not maintained

¹ A. Mitra—*Census 1951, West Bengal District Handbooks : Darjeeling* : Calcutta, 1954. p. lxi.

for any length of time due to want of cohesion in the material. ...Generally, the slipped debris gains such momentum that it scours a channel on the hill slope along its passage. Such channels later carry the drainage and gradually widen by erosion.

"Slips or slides in rock are primarily influenced by the structural elements of the parent rock. Thus in bedded or foliated rocks with down-slope bedding or foliation, or in rocks with prominent joints, shear planes or other planes of weakness down the slope, sliding may occur.

"The soil slips are generally of small magnitude as regards 'length' and 'affected height'. The debris slips are generally of greater magnitude and are devastating. Rock slips, however, are most devastating and sometimes affect large areas. Such major rock slips were not observed in Darjeeling. Here true soil and debris slips are common. ...

"Percolation of water causes reduction in the shearing resistance of the material forming the slope, a factual evidence of which is offered by the fact that landslips usually follow a period of rainfall when much of the precipitation has a chance of percolating into the material forming the slope. During rains the pore spaces and the voids get filled with water and cause a rise of piezometric surface, which, in turn, involves an increase of pore pressure and a decrease in the shearing resistance of the material adjoining the slope. Thus a soil or talus material which is ordinarily stable in a certain slope may cease to be so due to the decrease of the shearing resistance caused by undue addition of water during a heavy rain....

"The shearing resistance in slopes formed of soil is made up of a combination of 'internal friction' and 'cohesion'. In soil, specially clay types, the angle of internal friction is generally not more than 2 or 3 degrees. Hence with the internal friction alone, soil cannot be stable as a slope exceeding 2° to 3° (from horizontal). But due to cohesion, for some heights a soil slope is stable at very steep angles. For larger heights the safe angle decreases gradually and ultimately goes down to the angle of internal friction. ...In slopes formed of talus and rock debris, there is practically no cohesion between the different blocks, the stability of the slope depending upon internal friction alone. The angle or internal friction in rock debris which is sometimes 30° to 40° (from the horizontal) is known as the angle of repose. A slope will safely stand to a great height with an inclination slightly flatter than the angle of repose. In slopes formed of rock, slips occur only along certain planes of weakness like joints, bedding planes, etc.; a massive rock, free of such weak features may stand even vertically up to great heights. In Darjeeling the slips have been caused by one or all the factors mentioned before.

"In the soil covered slopes of Darjeeling numerous observations showed that slopes having a vertical height of less than 20 feet were not affected by slips. ... This is only true in the case of bare slopes while a cover of turf or thick undergrowth has been found to increase the safe height considerably. Nearly all the major slips in and around Darjeeling are confined to the slopes formed of talus material and where the ruling slope angle is slightly more than 40 degrees. Such talus material when in a dry or a permanently drained state is stable at an angle of 45° and the stability is not necessarily impaired by occasional wet spells. ... Though soil and debris slips are more common in Darjeeling, rock slips are also marked. Slips in rocks *in situ* occur along certain definite planes. They may be bedding planes, foliation planes, joints and also shears or other planes of weakness of a tectonic nature. For slips to occur, such planes should be steeper than the slope and their inclination sufficient to counteract the resistance offered by the rock.

"Earthquake tremors cause slips by momentarily increasing the load or decreasing the shearing resistance especially in cases where other factors have already brought the slope close to its limiting stability, the earthquake acting merely as a trigger. ... Summarising, the stability of slopes depends primarily upon (1) the angle of slope, (2) the material forming the slope, (3) nature of slope, (4) groundwater conditions and (5) earthquake. ...

"While landslide is a rapid down-slope movement of material, similar movement proceeding at an imperceptible rate is called 'Creep'. Slumping along roads which is recorded at long intervals may be classed in this category. The average rate of creep at many places is known to be less than one foot per decade. A very good example of creep is found in the slumping of the Cart Road on either side of Paglajhora near mile post 23. ... At any slope formed of unconsolidated material such as residual soil or rock debris, creep may develop into a slide and the slide may be followed by creep."¹

Before we come to the disastrous landslips of October 1968, the relatively minor ones that have occurred in the district prior to that date may be briefly described. Along the Khasmahal territory north of the Phang Khola-Lish confluence, the frequency of minor landslides such as soil slips, soil erosion and slides due to joint and bedding planes of rocks increase. The Pabringtar landslide (26°57'20"N and 88°31'30"E), in which about 40 million cubic feet of rock was displaced, seems to have been caused by joint planes in quartzites dipping less steeply than the slope of the

¹ *Bulletins of the Geological Survey of India, Series B—Engineering, Geology and Groundwater; No. 15, Part I—Landslides and Hillside Stability in the Eastern Himalayas. Delhi, 1966. pp. 16-21.*

hill. Near Yangmākun village (26°56'N and 88°31'E) a number of landslide scars are visible one of which was initiated by the 1934 earthquake and climaxed in 1954 when about 70 million cubic feet of material came hurtling down to form a 40 feet high temporary natural dam across the Lish. A smaller slide appears to have taken place in Daling slates and phyllites on the eastern slope of the ridge causing the removal of 20 million cubic feet of rock. The high slope of the hill and easterly dipping joint planes seem to have been the causes of this slide.¹ According to a map prepared by the Forest Directorate² of the Government of West Bengal, out of 130 slips in the Lish catchment above Chunābhatti, 115 occurred on the Dalings, 7 on the Siwāliks, 6 on the coal-bearing Damudas and only 2 on the Dārjiling gneiss. The Dalings—it is interesting to note—occupy only 8 sq. miles out of a total of 19 sq. miles under review.³ There was, again, a fairly large landslide at Pokhrebong (26°53'N and 88°36'E), where, due to southerly dipping joint planes of the Daling quartzites and over-grazing, about 2 million cubic feet of material was stripped off. West of Pātharjhora Forest Chowki (25°58'N and 88°39'E) on the Lethi river, the terrace gravels suffered partial soil avalanche on account of heavy rainfall following the elimination of the bamboo forest here and by over-grazing.

All these mishaps pale into insignificance in comparison with the appalling calamity which overtook the district late in 1968. Due to incessant and heavy rain (809 millimetres) for three days between 3rd and 5th October 1968, there were numerous landslides, big and small, accompanied by unprecedented floods in the Tista and other rivers. On October 5 alone, the fateful date, the rainfall was 499 millimetres.⁴ Landslips so disrupted the communication network that it took several days before the full measure of the damage was known in Calcutta and Delhi. The death-roll, officially estimated on 12 October was 677 while unofficial reports placed the figure much higher. The Rangpo Bridge on the Sikkim border along the Tista-Gangtok Highway, the magnificent, one-span concrete bridge on the Tista near Tista Bazar and several other bridges at strategic points were all gone. Flood waters swirled through the shops and houses of Tista Bazar and washed it away as if it had never been effacing 659 houses and rendering 543 families destitutes⁵. Further down the river, the Sivok railway bridge was also severely damaged. The Bālāsān river bridge and the nearby Dudhia bustee in P.S. Kurseong were swept away. In the Toonsong divison of the Dhutooria Tea Estate, 61 deaths were reported. In the nearby tea estate of Sivok many people were feared buried under debris. The power houses at Jaldhākā, Bijanbāri and Fazi suffered huge

1 *ibid.* p. 68.

2 *Ibid.* p. 84.

3 *Loc. cit.*

4 *Amrita Bazar Patrika* 10. 10. 68. p. 1.

5 *Hindusthan Standard* (9. 10. 66.),

losses. The Hill Cart Road, the arterial route between Siliguri and Dārjiling, was breached at 18 different places. The Old Military Road *via* Jalapāhār linking Dārjiling with Kurseong, and Pānkhabāri Road linking Kurseong with Siliguri had to be restored and used in place of the Hill Cart Road. Due to the disappearance of the Tista bridge, an alternative route to Kālimpong from Siliguri *via* Gorubāthān and Labha had to be opened. An aerial survey undertaken by the General Manager, North-East Frontier Railway, revealed widespread breaches on the broad-gauge, metre-gauge and narrow-gauge sections of the N.F. Railway. About 1,000 Calcutta-bound passengers were stranded at Siliguri and New Jalpānguri, 135 at Kurseong, 600 at Sonādā and about 2,500 at Dārjiling. It took the army engineers 5 days to repair the Kurseong-Siliguri Road and to evacuate 400 stranded people from Kurseong and Kālimpong. Dārjiling, Bijanbāri and Kālimpong had to spend days without power and filtered water. Postal communications were also snapped. Vast areas under Siliguri and Phānsidewa police stations were ravaged by floods in the Mahānandā and Phuleswari. The Calcutta-Siliguri Road with a ferry service at Farakka was restored more than five days after the breaches had occurred. Train services from Siliguri to Assam, Khejuriāghāt and Barāuni were also disrupted. Parts of National Highway No. 31 were erased from the landscape altogether. Landslides caused huge cracks across roads, uprooted railway tracts and washed away road bridges between Ghoom-Dārjiling, Sonādā-Tung, Kurseong-Tindharia and Bijanbāri-Pulbazar. The landslide on Girda Pāhār near Kurseong damaged over 500 feet of road and rail track and demolished many bustee hutments.¹ The Indian Tea Association in a statement claimed that after proper assessment of the damage "it is likely to be found that between ten and fifteen per cent of the total tea area in Darjeeling has been destroyed." It claimed that over 100 lives had been lost in the tea estates and there had been widespread damage to factories buildings and other installations. Complete chaos and terror gripped Kālimpong which was cut off from the rest of the world for weeks. All the roads in Kālimpong town were badly battered and many houses collapsed due to land subsidence. The road from Algarah to Labha was also severely damaged.

The disaster was of such a magnitude that a large body of military personnel had to be drafted to assist the civil authorities in restoring the normal life of the district.

FLORA

J. D. Hooker, the doyen of Himālayan Botany, in his introductory essay in the *Flora Indica*, divides the district into two zones. The lower, stretching from the plains to 5,000 feet above sea-level, he called the tropical zone, and the higher, up to the snow line,

¹ *Amrita Bazar Patrika* (13. 10. 68).

the temperate. His first impression was that botanical, geological, and zoological features of the district presented a sudden change. He noticed that the Himālayan vegetation commenced at the piedmont zone with a thick brushwood, choked with long grasses, and with but few trees, chiefly of *Acacia*, *Dalbergia Sissoo*, and a scarlet fruited *Sterculia*. The soil was a red, friable clay and gravel. Flowering plants included a very sweet-scented *Crinum*, *Asphodel*, and a small *Curcuma*. The banks of the hill streams, flowing or dry, were richly clothed with brushwood and climbers of convolvulus, vines, *Hiraea*, *Leea*, *Menispermaceae*, *Cucurbitaceae*, and *Bignoniaceae*. Further up, ferns, the little *Oxalis sensitiva* and other herbs appeared. Immediately below Pānkhābāri, he came across *Ficus elastica*, the India-rubber tree. It abounds in Assam, but this is its western limit. Leaving behind the stunted and bushy trees of the Terai proper, he crossed a giant forest of *Duabanga*, *Terminalia*, *Cedrela*, and *Gordonia wallichii*. Smaller timber and shrubs were numerous ; a succulent character pervaded the bushes and herbs, occasioned by the prevalence of *Urticeae*. The tree trunks were richly clothed with *Dendrobium pierardi* and other epiphytical orchids with pendulous *Lycopodia* and many ferns, *Hoya*, *Scitamineae*, and similar types of the hottest and dampest climates.

Botanical
divisions : nature
of vegetation : rare
types of Flora

“At about 1,000 feet above Punkabaree,” to quote Hooker, “the vegetation is very rich, and appears all the more so from the many turnings of the road, affording glorious prospects of the foreshortened tropical forests. The prevalent timber is gigantic, and scaled by climbing *Leguminosae*, as *Bauhinias* and *Robinias*, which sometimes sheath the trunks, or span the forest with huge cables, joining tree to tree. Their trunks are also clothed with parasitical Orchids, and still more beautifully with *Pothos* (*Scindapsus*), Peppers, *Gnetum*, Vines, *Convolvulus*, and *Bignoniae*. The beauty of the drapery of the *Pothos*-leaves is pre-eminent, whether for the graceful folds the foliage assumes, or for the liveliness of its colour. Of the more conspicuous smaller trees, the wild banana is the most abundant, its crown of very beautiful foliage contrasting with the smaller-leaved plants amongst which it nestles ; next comes a screw-pine (*Pandanus*) with a straight stem and a tuft of leaves, each eight or ten feet long, waving on all sides. *Araliaceae*, with smooth or armed slender trunks, and *Mappa* like *Euphorbiaceae*, spread their long petioles horizontally forth, each terminated with an ample leaf some feet in diameter. Bamboo abounds everywhere ; its dense tufts of culms, 100 feet and upwards high, are as thick as a man's thigh at the base. Twenty or thirty species of ferns (including a tree-fern) were luxuriant and handsome. Foliaceous lichens and a few mosses appeared at 2,000 feet. Such is the vegetation of the roads through the tropical forests of the Outer-Himalaya.

“A little below 4,000 feet a great change had taken place in the vegetation—marked, first, by the appearance of a very

English-looking bramble...Scattered oaks, of a noble species, with large lamellated cups and magnificent foliage, succeeded ; and along the ridge of the mountain to Kursiong, the change in the flora was complete.

"The spring of this region and elevation most vividly recalled that of England. The oak flowering, the birch bursting into leaf, the violet, *Chrysosplenium*, *Stellaria* and *Arum*, *Vaccinium*, wild strawberry, maple, geranium, bramble. A colder wind blew here ; mosses and lichens carpeted the banks and roadsides ; the birds and insects were very different from those below ; and everything proclaimed the marked change in elevation. . . From Kursiong a very steep zigzag leads up the mountain, through a magnificent forest of chestnut, walnut, oaks, and laurels. It is difficult to conceive a 'grander mass of vegetation—the straight shafts of the timber-trees shooting aloft, some naked and clean, with grey, pale, or brown bark ; others literally clothed for yards with a continuous garment of epiphytes, one mass of blossoms, especially the white Orchids *Caelogyne*, which bloom in a profuse manner, whitening their trunks like snow. More bulky trunks bore masses of interlacing climber, *Araliaceae*, *Leguminosae*, Vines, and *Menispermaceae*, *Hydrangea*, and Peppers. . ."¹

Around Sonādā at an elevation of nearly 7,300 feet, Hooker saw English-looking plants in abundance, namely *Chrysosplenium*, violet, *Lobelia*, a small geranium, strawberry, five or six kinds of bramble, *Arum*, *Paris*, *Convallaria*, *Stellaria*, *Rubia*, *Vaccinium*, and various *Gnaphalia*. . . The trees were one half oaks, one quarter Magnolias, and nearly another quarter laurels, amongst which grew Himalayan kinds of birch, alder, maple, holly, bird-cherry, common cherry, and apple. The absence of *Leguminosae* was most remarkable, and the most prominent botanical feature of the region. Clematis was rare, and other *Ranunculaceae* still more so. *Cruciferae* were absent, and there were very few local species of grasses. But *Rhododendron*, *Camellia*, *Magnolia*, Ivy, Cornel, Honeysuckle, *Hydrangea*, *Begonia*, and Epiphytic occurred in abundance. On the Senchal eminence near Ghum, Hooker came across oaks, laurels, maples, birch, chestnut, *hydrangea*, a species of fig, and three Chinese and Japanese genera.

Travelling north from Dārjiling to the Great Rangit Hooker observed flora of a somewhat different nature. Oaks, chestnuts and magnolias abounded between 10,000 and 7,000 feet. Tree ferns appeared below 6,500 feet, which was also the zone for a species of *Calamus* and *Plectocomia*, the 'Rhenoul' of the Lepchas. The latter, though not a very large plant, climbs lofty trees and extends about 40 yards through the forest. Another important species is a wild plantain (the 'Lukhlo' of the Lepchas) which

¹ J. D. Hooker—*Himalayan Journals*. London, 1854. pp. 73-75.

ascends nearly to the same elevation. The zones of these conspicuous plants are very clearly defined. Below the Lebong spur the *Gordonia* commences, with *Cedrela toona*, and various tropical genera, such as abound near Pānkābāri. The oak and chestnut of this level (3,000 feet) are both different from those which grow above, as are the brambles. The *Arums* are replaced by *Caladiums*. Tree-ferns cease below 4,000 feet, and the large bamboo abounds.

Ten miles north of Dārjiling town, Hooker reached a low, long spur, about 2,000 feet high, dipping down to the bed of the Great Rangit river. The vegetation was scanty and dry except for an abundance of the *Pinus longifolia* and *Sal.* The dwarf date-palm (*Phoenix acaulis*) was also very abundant. "The descent to the river was exceedingly steep, the banks presenting an impenetrable jungle. The pines on the arid crests of the hills around formed a remarkable feature : they grow like the Scotch fir, the tall, red trunks springing from the steep and dry slopes. But little resin exudes from the stem, which, like that of most pines, is singularly free from lichens and mosses ; its wood is excellent, and the charcoal of the burnt leaves is used as a pigment. Being confined to dry soil, this pine is local in Sikkim, and the elevation it attains here is not above 3,000 feet. In Bhotan where there is more dry country, its range is about the same, and in the north-west Himalaya, from 2,500 to 7,000 feet."

In an east to west excursion from Dārjiling to Tanglu on the Singālila range, Hooker observed : "At about 4,000 feet the great bamboo (*Pao* : Lepcha) abounds : it flowers every year, which is not the case with all others of this genus. . . The *Pao* attains a height of 40 to 60 feet, and the culms average in thickness the human thigh ; it is used for large water-vessels, and its leaves form admirable thatch, in universal use for European houses at Darjeeling. Besides this, the Lepchas are acquainted with nearly a dozen kinds of bamboo ; these occur at various elevations below 12,000 feet, forming, even in the pine-woods, and above their zone, in the skirts of the *Rhododendron* scrub, a small and sometimes almost impervious jungle. . . *Gordonia* is their (Lepchas') most common tree (*G. Wallichii*), much prized for plough-shares and other purposes requiring a hard wood : it is the *Sing-brang-kum* of the Lepchas, and ascends to 4,000 feet. Oaks at this elevation occur as solitary trees, of species different from those of Darjeeling. . . Some low steep spurs were well cultivated, though the angle of the field was upwards of 25° ; the crops, chiefly maize were just sprouting. . . The general prevalence of figs, and their allies, the nettles, is a remarkable feature in the botany of the Sikkim Himalaya, up to nearly 10,000 feet. Of the former there were here five species some bearing eatable and very palatable fruit of enormous size, others with fruit small and borne on prostrate, leafless branches, which spring from the root and creep along the ground."

Just below Tanglu, two species of bamboo, the *Payong* and *Praong* of the Lepchas, replace the *Pao* of the lower regions. Wild strawberry, potato, peaches, rice, millet, yam, brinjal, hemp (for smoking its narcotic leaves), cummin, etc., thrive well. So do European vegetables which thrive remarkably well throughout the summer of Dārjiling, and the produce is very fair, sweet and good.

Of the tropical fruits grown below 4,000 feet, Hooker found oranges and indifferent bananas important. The season for these is, however, very short ; though that of the plantain might with care be prolonged ; oranges abound in winter, and are excellent, but neither so large nor free of white pulp as those of the Khasia hills. A singular and almost total absence of the light, and of the direct rays of the sun in the ripening season, is the cause of this dearth of fruit. There is in this respect a great difference between the climate of the central and eastern and western Himālaya at equal elevations. In the western (Kumaon, etc.) the winters are colder than in Sikkim—the summers warmer and less humid. The rainy season is shorter, and the sun shines so much more frequently between the heavy showers, that the apple and other fruits are brought to a much better state.

Continuing the ascent to Tanglu Hooker travelled, 'through deep humid forests of oaks and magnolias, many laurels, both *Tetranthera* and *Cinnamomum*, one species of the latter ascending to 8,500 feet, and one of *Tetranthera* to 9,000. Chestnut and walnut here appeared, with some leguminous trees, which however did not ascend to 6,000 feet. Scarlet flowers of *Vaccinium serpens*, an epiphytical species, were strewn about, and the great blossoms of *Rhododendron Dalhousiae* and of a *Magnolia* (*Talauma Hodgsoni*) lay together on the ground. The latter forms a large tree, with very dense foliage and deep shining green leaves, a foot to eighteen inches long." At 6,000 feet he found certain trees twisting around the trunks of others thereby killing them and leaving a sheath of the climbers as one of the most remarkable vegetative phenomena of these regions. These climbers belong to several orders and include *Leguminosae*, ivies, hydrangea, vines, *Pothos*, figs and *Wighia*. The forests at 8,000 feet consisted of three species of oak, chestnut, Laurineae of several kinds, magnolias and Arborescent rhododendrons, which commenced here with the *R. arboreum*. At 8,000 and 9,000 feet, a considerable change was found in the vegetation ; the gigantic purple *Magnolia Campbellii* replacing the white, chestnut disappeared and several laurels, other kinds of maple were seen, with *Rhododendron argenteum*, and *Stauntonia*. At 9,000 feet he saw purple magnolias, with a few oaks, great *Pyri* and rhododendrons while *Skimmia* and *Symplocos* were the common shrubs. A beautiful orchid with purple flowers (*Coelogyne Wallichii*) grew on the trunks of all the great trees even at 10,000 feet thus attaining an elevation higher than most other epiphytical species.

Nearing his destination, Hooker found that close to the summit there was a great variety of additional species of plants which betokened a rapid approach to the alpine region of the Himālaya. In order of prevalence the trees were, the scarlet *Rhododendron arboreum* and *barbatum* which are large bushy trees, both having beautiful flowers and luxuriant foliage; *R. falconeri*, which, in point of foliage, is the most superb of all the Himālayan species, with trunks thirty feet high, and branches bearing at their ends only leaves eighteen inches long; and shrubs of *Skimmia Laureola*, *Symplocos*, and *Hydrangea*. An erect white-flowered rose (*R. sericea*) was very abundant. A currant was common, always growing epiphytically on the trunks of large trees. Two or three species of berry, a cherry, andromeda, *daphne*, and maple completed the list of woody plants. Amongst the herbs were many of great interest; for instance, *Aconitum palmatum*, which yields one of the celebrated 'Bikh' poisons. Of European genera he found *Thalictrum*, *Anemone*, *Fumaria*, violets, *Stellaria*, *Hypericum*, two geraniums, balsams, *Epilobium*, *Potentilla*, *Paris* and *Convallariae*. Still the absence or rarity at this elevation of several very large natural families, which have numerous representatives at and much below the same level in the inner ranges and on the outer of the Western Himālaya, indicated a certain peculiarity in these mountains. On the other hand, certain tropical genera were more abundant in the temperate zone of these mountains, and ascended much higher than in the Western Himālaya. This ascent and prevalence of tropical species was, according to Hooker, due to the humidity and equability of the climate in this temperate zone.

The vegetation in the northern parts of Dārjiling and Sikkim, is European and North American; that is to say, it unites the boreal and temperate flora of the east and west hemispheres presenting also a few features peculiar to Asia. This is a subject of very great importance in physical geography as a country combining the botanical characters of several others, affords materials for tracing the direction in which genera and species have migrated, the causes that favour their migrations and the laws that determine the types or forms of one region or another. Northern Dārjiling and Sikkim are nearly equidistant from the tropical forests of Terai and the barren mountains of Tibet, for which reason representatives of both the dry central Asiatic and Siberian and of the humid Malayan flora meet here.

Of the flora in and around Dārjiling town, including both wild and cultivated species, nearly 50 per cent are indigenous to the Himālayas. Of the rest Japan has supplied about 14 per cent, North America 7, Australia and China 6 each, Malay and Europe 4 each, South America and the tropical zone of Asia 3 each, Central America 2, Burma 1 and Africa 0.5. Of the non-endemic elements, migration of the Malayan species was facilitated by land connexion between the two countries. The Himālayan uplift

in the Eocene age converted Tibet into a cold desert and the central Asiatic elements migrated southwards. Very little information is available about the ecological classification of the Dārjiling flora, nor do we know the successional relationship of the various plant communities.

Forests :
Forest belts and
areas covered

Most of the forest areas of the district are administered as reserved or protected forests by the Directorate of Forests, Government of West Bengal while certain others, previously coming under the Khas Mahal administration of the Deputy Commissioner, have since been transferred to the Forest Directorate for administrative efficiency. The following table indicates the different categories of forest belts and their respective acreages in March 1966.

Name of Forest Division	Reserved Forests (Acres)	Protected Forests (Acres)	Unclassified Forest State area under forests and corporate lands for affores- tation		Grand total (Acres: as on 31-3-66)
			bodies and private individuals		
Dārjiling	72,936	3,297	470	10,958	87,661
Kurseong	71,815	593	2,051	10,475	84,934
Kālimpong	1,43,957	285	1,870	—	1,46,112

Previously, many forest areas formed parts of tea estates. Such lands as well as the Khas Mahal forests vested in Government in 1953 under the Estate Acquisition Act and were subsequently notified as Protected Forests under Indian Forest Act XVI of 1927. The very term 'Reserved Forests' suggests conservation of forest resources for which we are indebted to Dietrich Brandis, the Inspector-General of Forests (1862). The first reservations in the forest areas of Dārjiling district were notified in the official Gazette on 13th July 1865 according to the provisions of Act VII of 1865 and restrictions were placed on the sale of *Sal* forests of the Terai under the Waste Land Rules.¹ Forest demarcation and reservation proceeded fast after the inauguration of forest conservancy work. In 1879 the total area of Reserved Forests in Dārjiling division was 27,143, in Kurseong division 60,994 and in Kālimpong division 27,079 acres.²

¹ *West Bengal Forests : Centenary Commemoration Volume*. Calcutta, 1964. p. 81.

² *Ibid.* p. 81.

The forests of the district may be classified into two broad groups : the plain forests and the hill forests which grow on different types of soil. Soil adjacent to rivers is mainly sandy. It turns to deep loam as one recedes into the interior. Riverain forests occur on sandy soils near river beds, the most important of which are the *Acacia catechu* and *Dalbergia Sissoo* forests found along the beds of Tista, Sivok, Māhanadi, Rakti, Bālāsan, Mechi, Rongdongding, Ramthi, Lish, Gish and Chel rivers. The types and sub-types noticed in these forests are : *Khair-Sissu*, *Simul-Siris*, *Tun-Gamari*, *Sal*, *Dry-Mixed* and *Wet-Mixed*.

Plain Forests :
Tropical Dry
Evergreen Forests
(champion's serial
type I S/2 of
group 6)

The *Khair-Sissu* forests occur on sandy soil near the river beds. Along the beds of the Tista, Sivok, Māhanadi, Rakti, Bālāsan and Mechi rivers, pure *Khair* (*Acacia catechu*) associated with a small number of *Sissu* (*Dalbergia Sissoo*) is found while *Siris* (*Albizia* spp.), *Phaledo* (*Erythrina* spp.), *Kadam* (*Anthocephalus indicus*), *Pitali* (*Trewia nudiflora*) and *Gamari* appear to be very widely spaced. The vegetation is mostly in patches or strips. The growth of planted *Khair* trees in this region is fair.

The *Simul-Siris* forests appear further inland where the soil is more stable ; there *Khair* and *Sissu* get gradually sparse and *Simul* (*Bombax malabaricum*), *Siris*, *Phaledo*, *Pitali*, *Latikaram* (*Hymenodictyon excelsum*), *Karam* (*Adina cordifolia*) and similar species form a more or less open forest. *Khasila* grass (*Saccharum spontaneum*) gradually disappears and *Dhadda* (*Sacchharum* spp.) or similar tall grasses such as *Archal* (*Antidesma diandrum*) take its place. The regeneration of the planted species is fair but the progress is much retarded due to the invasion of climbers in the Māhanadi and Rakti Blocks.

In the *Tun-Gamari* forests valuable species appear in intimate mixture with those of the foregoing type. The soil here is richer and the species usually found are *Tun*, *Gamari*, *Oodal* (*Sterculia villosa*), *Latikaram*, *Maina* (*Tetrameles nudiflora*), *Khirra* (*Holarrhena antidysenterica*) and *Dudhi* (*Wrightia tomentosa*). The undergrowth changes from grass to herbs and shrubs. Common climbers are *Acacia pinnata*, *Milletia auriculata* and *Mucuna prurita*.

In the *Sal* forests *Sal* trees occur gregariously on well-drained deep loamy soil in association with varying proportions of *Chilaune* (*Schima wallichii*), *Pakassi*, *Chikrassi* (*Chukrasia tabularis*), *Sidha* (*Lagerstroemia parviflora*), *Lahasune* (*Amoora rohituka*), *Kumbhi* (*Careya arborea*), *Parari* (*Stereospermum suaveolens*), *Tantri* (*Dillenia pentagyna*) and *Dabdabe* (*Garuga pinnata*), etc. The undergrowth mainly consists of *Bhani* (*Clerodendron infortunatum*) *Sau* grass (*Pollinia ciliata*), *Coffea bengalensis*, *Galen* (*Leea* spp.) and *Assamlota* (*Eupatorium odoratum*).

The Dry-Mixed forests occur on dry soil in the foothills and display a density of vegetation which is much less than that in the foregoing types. *Sal* is found scattered but its height and growth are rather poor. The other principal species are *Paccasaj* (*Gamari*), *Oodal*, *Maina*, *Mandane* (*Acrocarpus fraxinifolius*), *Sidha* (*Lagerstroemia parviflora*) and *Borhar* (*Artocarpus lakoocha*).

The Wet-Mixed forests are found where the water table is shallow and the drainage is bad. The principal vegetation is evergreen and the crop-density is thick. The common species found are *Chapalish* (*Artocarpus chaplasha*), *Borhar*, *Kawla* (*Machilus* spp.), *Lali* (*Amoora wellichii*), *Champ*, *Ambake* (*Jambora formosa*), *Jamuna* (*Eugenia* spp.), and *Malagiri*. The undergrowth is dense and climbers are numerous. Wherever the soil is damp and drainage is bad, cane occurs abundantly. Natural regeneration is practically absent.

Medicinal plants found in the plain forests are *Apang* (*Achyranthes aspera*), *Kuliajan* (*Alpinia galanga*), *Sati* (*Curcuma zedoaria*), *Dhutura* (*Datura fastuosa*), *Karpur Kachuri* (*Hedychium spicatum*), *Thankuni* (*Centella asiatica*), *Ajīm* (*Papaver somniferum*), *Pipul* (*Piper longum*), *Pathura Harjora* (*Pouzolzia hirta*), *Thampi* or *Leucoderma* plant (*Abutilon indicum*), *Basak* (*Adhatoda vasica*), *Baramala* (*Callicapra macrophylla*), *Akanda* (*Calotropis gigantea*), *Ghetu* (*Clerodendron infortunatum*), *Sankarjata* (*Uraria picta*), *Kukar-chura* (*Pavetta indica*) and many others.

Hill Forests

The hill forests of the district can be divided into five classes, namely Lower Hill Forests up to 3,000 feet altitude with 3 sub-types (a) *Sal* forests, (b) Dry-Mixed forests and (c) Wet-Mixed forests ; the Middle Hill Forests ranging from 2,500 to 5,500 feet ; the Upper Hill Forests occurring between 5,000 and 9,000 feet ; Conifers and Rhododendrons and Alpine Forests.

The Lower Hill Forests

In the Dārjiling division, *Sal* is gregarious on ridges and spurs (other than those with northerly aspects) having well-drained soil and is mainly confined to the Daling series. In other parts it is usually stunted and of poor growth. It is also found elsewhere in association with a large number of miscellaneous species of which *Paccasaj* (*Terminalia tomentosa*), *Chilauni* (*Schima wallichii*), *Toon* (*Cedrela toona*), and *Chikrassi* (*Chukrasia tabularis*) are the more valuable. In pockets or in the northerly aspects of the hills the forests are varied in character, the chief species being *Champ* (*Michelia* spp.), *Panisaj* (*Terminalia myriocarpa*), *Gokul* (*Ailanthus grandis*), *Simul* (*Salmalia malbarica*), *Lampati* (*Duabanga sonneratioides*), *Mainakath* (*Tetrameles nudiflora*), *Gamari* (*Gmelinā arborea*), *Mandani* (*Acrocarpus fraxinifolius*) and *Kadam* (*Anthocephalus cadamba*). Around Badamtam in the Rangit valley, pine (*Pinus longifolia*) is common and occurs naturally. The undergrowth is sparse in *Sal* forests, varied in the Dry-Mixed and impenetrable in the Wet-Mixed. It consists of numerous

herbaceous annuals and shrubs such as *Amlisha*, *San grass*, *Assam-lota*, *Bepari* (*Ostodes paniculata*), *Alpinia*, *Pandanus* and coffee. *Tama* or *Choya* bamboo (*Dendrocalamus hamiltonii*) grows extensively except on the driest slopes and forms almost pure bamboo forest in the moister regions. The area abounds in climbers the more common of which are *Gurio lahare* (*Tinospora cordifolia*), *Debre lahare* (*Spatholobus roxburghii*), *Acacia pinnata*, *Dalbergia stipulata*, *Golanha* (*Tinospora cordifolia*), *Bhorla* (*Bauhinia vahlii*), *Kurkus* (*Milletia pachycarpa*) and *Caoh* (*Mucupruriens*). Plantations of *Sal*, *Toon*, *Panisaj*, *Chikrassi*, *Lampati* and lately teak (*Tectona grandis*) have been raised in this zone.

In the Kurseong Division *Sal* grows pure or mixed with other deciduous species on ridges and on southern and eastern slopes of moderate gradient. Its growth is fair and regeneration good on or near the ridges. Steep slopes are occupied by its deciduous associates, the chief of which are *Paccasaj*, *Chilauni*, *Maina*, *Simul*, *Karam* (*Adina cordifolia*), *Gamari*, *Harra* (*Terminalia chebula*), *Barra* (*Terminalia belerica*), *Kimbu* (*Morus laevigata*) and *Amla* (*Phyllanthus emblica*). *Sal* becomes rare above 2,500 feet due to the existence of Damuda outcrop at altitudes much lower than those in the adjoining Dārjiling and Kālimpong Forest Divisions. Moist land here is occupied mainly by *Lampati*, *Mandani*, *Toon* (*Cedrela microcarpa*), *Champ*, *Panisaj*, *Malagiri* (*Cinnamomum cecidodaphne*), *Gokul*, *Katus*, (*Castanopsis* spp.), *Angare* (*Phoebe hainesiana*), and *Tajpat* (*Cinnamomum tamala*), *Pahenle* (*Neonau-clea griffithii*), etc. Almost a pure crop of bamboos is seen to grow on steep and in the ravines.

It is interesting to note that while *Sal* grows at an altitude of 3,500 feet in the northern portion of Kālimpong Range, it occurs up to an elevation of 1,500 feet only in the southern part of that range. For geological reasons it does not occur between the Chel and the Jaldhākā rivers. Common and important species of this zone include *Mova* (*Engelhardtia spicata*), *Murse Katus* (*Castanopsis tribuloides*), *Paccasaj*, *Panisaj*, *Mandane*, *Barra*, *Dabdbe* (*Garuga pinnata*), *Gamari*, *Sidha*, *Parari*, *Oodal* (*Sterculia villosa*), *Chilauni*, *Haldu* (*Adina cordifolia*), *Hatipaila* (*Pterospermum acerifolium*), *Kimbu*, *Toon*, *Lampati*, *Tanki* (*Bauhinia purpurea*), *Kadam*, *Lali* (*Amoora wullichii*) and *Ambake* (*Eugenia kurzii*). In the Kālimpong Range the climax association is *Shorea-Terminalia-Garuga*, whereas in the Chel Range the association is *Shorea-Stereospermum*. *Shorea robusta* forms 34 per cent of the crop on the Dalings in the Tista valley. In Ponbu and Guling blocks *Sal* occurs in isolated patches. Considerable areas here are covered with *Tama* bamboos. There are many huge climbers, such as, *Aspidocarpa uvifera*, *Beaumontia grandiflora*, *Combretum* spp., *Entada scandens*, *Hiptage madablota*, etc. Due to differences in the quality of the soil, the *Shorea-Garuga* is replaced by miscellaneous deciduous species in the Ponbu Block where *Parai* is found in greater abundance than elsewhere in the

Kālimpong Range and it becomes the predominant species in the Chel Range. Its associates are those of the *Shorea-Stereospermum* sub-type. It persists as the principal species as far as the Sakam Block in the Neora Range excepting Fagu Block where *Tanki* exceeds it. On the drier alluvial soil near Khumani the vegetation again changes, *Ambake* (*Eugenia formosa*) and *Tanki* being the most frequently occurring trees. Under the top canopy of *Sal* forests which runs almost unbroken at a height of 100 to 120 feet are the various evergreen species, such as, *Meliosma simplicifolia*, *Mangifera sylvatica*, *Glochidion lanceolarium* etc. The height of the Dry-Mixed forest trees, all of which are deciduous during the dry-hot season, ranges from 60 to 70 feet. The common species in the undergrowth are *Phlogacanthus thyrsoiflorus*, *Doe-dalacanthus nervosus*, *Holmskioldia sanguinea*, *Tabernaemontana coronaria*, *Jasminum* spp. and various kinds of epiphytes, orchids, aroids etc. The weeds *Eupatorium odoratum* and *Croton caudatus* invade waste lands and where there is a break in the canopy.

In the damper areas towards the eastern boundary of the district, *Thali* (*Turpinia pomifera*), *Jamuna* (*Eugenia ramosissima*), *Chilauni*, *bhalukath* (*Talauma Hodgsoni*), *Panisaj*, *Angare*, *Champ* and *Nageswar* (*Mesua ferrea*) are common while in the riverain forests, i.e., along the sandy beds of the Lish, the Chel and their tributaries, *Siris* (*Albizia drocera* and *odoratissima*), *Khair* (*Acacia catechu*) and *Sissoo* (*Dalbergia sissoo*) grow among *Kushila* grass (*Saccharum imperatum*). In the northern parts of Mongpong Block (near Parsong Jhora) are found various species of *Eugenia*, namely *E. operculata*, *E. ramosissima* and *E. formosa* associated with *Laurels*, *Champ* and *Chilauni*. On the temperate alluvium near Khumani Block, *Ambake* is the principal species followed by *Angare* and *Tarsing* (*Blieschmiedia* spp.) which Cowan has distinguished as *Eugenia-Phoebe* association. Large patches of pure *Nageswar* occur in the Mal and Jaldhākā Blocks. Between the Tistā and the Neorā at an altitude of about 1,500 feet *Chilauni* is the principal species. *Tanki* and *Angare* are also found, the former decreasing and the latter increasing eastwards. This has been described as *Schima-Bauhinia* association by Cowan. The great majority of these trees are evergreen constituting a seral stage leading a succession to a northern tropical evergreen forest. This secondary succession is due mainly to biotic factors among which clearing must have been very important and burning the clearings might in the long run have been most influential. The undergrowth of economic value are *Tama* and *Pheling* bamboos (*Pseudostachyum polymorphum*). These occur over extensive areas, sometimes to the exclusion of tree species. The undergrowth is often a tangle of canes, bamboos and palms. Similarly the tree canopy is also very dense and the average height of the principal species reaches 150 feet.

Utis (*Alnus nepalensis*), Walnut (*Juglans regia*), Birch or *Saur* (*Betula alnoides*), *Lali Kawla* (*Machilus odoratissima*), *Lepcha kwala* (*M. edulis*), *chiple kwala* (*M. Gammieana*), *Pipli* (*Bucklandia populnea*), *Angare* (*Phoebe* spp.), *Mauwa* (*Engelhardtia* spp.), *Lekh toon* (*Cedrela febrifuge*), certain species of *Champ*, Oaks (*Quercus*), such as, *Buk*, *Sungre*, *Arkaula* and *Phalat*, the Spanish chestnut (*Castanopsis* spp.) and *Chilauni*. Various species of maple or *Kapasi* (*Acer* spp.) occur in great numbers and reproduce naturally to a moderate extent. The undergrowth is not heavy but consists of numerous herbs and shrubs, such as, *Erva japonica*, *Symplocos theifolia*, *Meliassa wallichii*, *Rubus* spp., *Viburnus strobilanthus*, *Astelbu rivularis*, *Swertia chirata*, *Daphne canabins* and *Arundinaria maling*. In certain areas the small *Pheling* bamboo is found. Plantations consist mainly of *Dhupi* (*Cryptomeria Japonica*), *Panisaj*, *Toon*, *Pipli* and *Walnu*.

In the Kurseong Division the main species are *Lekh toon*, *Panisaj*, *Chilauni*, *Lampati*, *Saur* (*Betula alnoides*), *Kimbu*, *Angare*, *Arkeula* (*Quercus fenestrata*), *Phaledo*, *Madar* (*Erythrina stricta*), *Alsophila* (tree fern), *Pipli* (*Bucklandia populnea*), *Tejpat*, *Utis*, *Pahenle* (*Adina cordifolia*), *Kutus*, *Malata* (*Macaranga pustulata*), *Dhupi*, *Sinkoli* (*Cinnamomum* spp.), *Maleairi*, *Mandani*, *Siris*, *Mauwa* (*Engelhardtia spicata*) and hill *champ*. All these are of magnificent size both in height and girth. The soil is rich due to abundance of the Dalings.

In the Kālimpong Division the Middle Hill Forests occur from about 2,500 to 5,500 feet on Darjiling gneiss and Daling series of slates, quartzites and schists which form a rich sandy loam accounting for the fine growth of some of the forests. Cowan divided the forests into two altitudinal groups (from 2,500 to 4,000 and 4,000 to 5,500 feet) and recognized in each group two types of associations in both of which large climbers were common. The first group comprised two Associations of which one was the *Castanopsis-Schima* Association. In certain portions of the Kālimpong Range above 2,500 feet *Musre katus* (*Castanopsis tribuloides*), *Dhalne katus* (*C. indica*) and *Chilauni* (*Schima wallichii*) form, on an average, 54 per cent of the vegetation, *Musre katus* alone forming 37 per cent. The under-storey and undergrowth contain *Grewia vestita*, *Haynea trijuga*, *Eurya japonica*, *Boehmeria* spp., etc. At a corresponding elevation in the Jaldhākā Range the *Schima-Castanopsis-Phoebe* Association occurs wherein *Chilauni*, *Dhalne katus*, *Musre katus*, *Angare* and *Tanki* (*Bauhinia purpurea*) form 48 per cent of the growth, *Chilauni* alone accounting for 26 per cent. *Parari* (*Stereospermum personatum*), *Champ*, *Toon* (*Cedrela* spp.) and *Patpate* (*Meliosma simplicifolia*) are the other species found along with *Eurya* and *Macaranga* spp. The second group (4,000 to 5,500 feet) consists of two Associations, one of which is the *Engelhardtia-Castanopsis-Schima-Betula* Association wherein *Musre katus*, *Mauwa*, *Saur* (*Betula*), *Cylindrostachys*, *Chilauni* and *Utis* (*Alnus nepalensis*) are more plentiful

than other species. At higher elevations, *Engelhardtia* becomes more frequent and *Nysa javanica*, *Alcimandra cathcartii*, *Machilus edulis* and other species appear. The undergrowth proper is mainly herbaceous, containing a large proportion of *Rubus* spp., *Viburnum* spp., *Strobilanthes* spp., *Massa chisia* and ferns and bamboos. In the *Ostodes* Association where there is a heavy rainfall, as in the Jaldhākā range and on portions of the southern slope of Lulagāon ridge, *Bepari* (*Ostodes paniculata*), *Chiple kawla* (*Machilus gammieana*), *Tarsing* (*Beilschmiedia sikkimensis*), *Chilauni*, *Angare*, *Mauwa*, *Lyonia ovalifolia* (syn. *Pieris ovalifolia*) are the main species. Generally speaking, the Middle Hill Forests are closed evergreen forests, the trees being mostly short-boled and branchy, though often attaining a considerable girth. The height of the canopy varies from 70 to 80 feet.

The Upper Hill Forests

The greater part of the Darjiling Division falls in the Northern Wet Temperate forests zone which is characterised here by rather overmature specimens of oaks, magcapolias and laurels. The species are numerous but the following occur in quantity : oaks, *buk* (*Quercus lamellosa*), *phalat* (*Q. lineata*), *sungre katus* (*Q. Bachyphylla*), the chestnuts and *katus* (*Castanopsis hystrix* and *tribuloides*), *kawlas* (*Machilus* spp.), *champs* (*Michelia* spp.), *ghoge champ* (*Magnolia campbellii*), *sinkoli* (*Cinnamomum* spp.), maples and *kapasi* (*Acer Campellii* and *Pactinatum*). Of the lesser species, *khamkpa* (*Evodia* spp.), *jhingani* (*Eurya japonica*) and *kharani* (*Symplocos* spp.) are worth a mention. The trees are poor in appearance, stag-headed and covered with moss and lichens. The undergrowth is dense and contains many nettles, raspberries, ferns and bamboos. Plantations in this zone are extensive and consist mainly of *dhupi* (*Cryptomeria japonica*), introduced from Japan in the late 19th century, and *utis*, *pipli*, *champ* and oaks.

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In the Kurseong Division, *saur* (*Betula* spp.) is the only valuable indigenous species growing in the lower part of the zone. The soil is poor, the predominating rock being gneiss. *Toon* (*Cedrela* spp.), *panisaj* and *kimbu* are found in small quantities. Certain parts of the zone suit *sinkoli*, *utis*, *kapasi*, *katus*, *arkaula*, *mauwa*, *phalat*, walnut and *pipli*. In the upper part, the valuable species, are *buk*, *phalat*, *champ* (*Michelia excelsa*), *lali kawla* (*Machilus odoratissima*), *pipli* and *lekh toon*. A number of exotic species such as, eucalyptus, *Cedrus deodara* and *Cupressus cashmiriana* have been introduced. The undergrowth is mainly *Rubus*, *Strobilanthes*, bamboos and ferns. Lichens and moss cover the trunks and branches of trees.

In Kālīmpoṅg Division the Upper Hill forests are characterised by the presence of laurels and oaks. Three altitudinal zones may be distinguished by virtue of the predominance of *Lauraceae*, *Quercus lamellosa* and *Q. pachyphylla*. In the laurel forests occurring between 5,500 and 7,000, *mauwa* (*Engelhardtia spicata*)

is usually the commonest species up to 6,000 feet but from 6,000 to 7,000 feet *lapche kawla* (*Phoebe attenuata*) and *tite champ* (*Alcimandra cathcartii*) each form about 10 per cent of the crop. *Machilus edulis* is also very common. *Musre katus* (*Castanopsis tribuloides*), *pahenle* (*Litsaea elongata*), *mauwa*, *chilaune*, *tarsing* and *chinde* (fam.-*Araliaceae*) follow, occurring about half as frequently. *Malata* (*Macaranga pustulata*), *saur* (*Betula alnoides*) and *chinde* predominate on the southern aspects on areas which had formerly been cultivated. In the *buk*-oak forests at altitudes of 7,000 to 8,000 feet oak occupies the top canopy and the laurels remain in the second storey only. *Buk* (*Quercus lamellosa*) accounts for about 12½ per cent of the vegetation followed by *kapasi* (*Acer cambellii*), *kawla* (*Machilus gammieana*), *pahenle* (*Litsaea elongata*), *tite champ* (*Alcimandra cathcartii*), and *hill champ* (*Michelia doltsopa*), etc. In the high-level oak forests between 8,000 and 9,000 feet the typical species is *sungre katus* mixed with a good deal of *buk* (*Q. lamellosa*) at the lower elevations. Other associates are *kapasi* (*Acer campbellii*) and *musre katus*. In the Upper Hill forests there is a dense undergrowth of *kibu* (*Strobilanthes* spp.) or *pareng* bamboo (*Arundinaria aristata*) at the lower and *maling* bamboo (*A. racemosa*) at the higher elevations.¹ Wild raspberries and various species of *Strobilanthes* are also very common.

Secondary temperate scrub is distributed throughout the temperate forest on the sites of abandoned shifting cultivation and on excessively grazed and lopped areas. One recognizes that at many places conifer forests have grown on abandoned terraced fields. These secondary communities are mostly formed of *Pinus excelsa* "and show at some places seedlings and saplings of oaks ; but their succession to oak climax is prevented by continued grazing in the area and oaks being cut, fodder species are eaten up and are not allowed to grow into big forest."² Similarly, deodar and chir-pine communities occur in the district, the origin of which is biotic. Some blue pine or deodar communities are relicts since they show among them large-sized trees of rhododendron which constitute oak associates in climax conditions. On the dip slopes, where due to seepage the soil is more moist, there occurs the mesophyllous and mixed communities whose requirements for soil minerals and plant food are heavier. Thus chir-pine develops on escarpments while deodar forms extensive gregarious patches on the dip slope. Chir-pine flourishes on low calcium containing quartzite soils or schistose soils but never on high calcium containing granitic soils. The latter is occupied mostly by deodar.³

¹ Source : Forest Economist, West Bengal.

² G. S. Puri—*Indian Forest Ecology*, Vol I, New Delhi, 1960. p. 255.

³ Ibid. p. 243.

The conifers
rhododendrons and
Alpine forests

The present forests in the Darjiling Division may be divided into three altitudinal zones, namely *Machilus-Michelia* association between 6,000 and 7,000 feet. *Quercus* association between 7,000 and 9,000 feet and rhododendrons above 9,000 feet. These forests contain chiefly dwarf bamboos, rhododendrons or conifers with patches of high elevation *Machilus* spp., *Michelia* spp., oak (*Quercus lamellosa* and *pachyphylla*), maple (*Acer* spp.), and *ghoge champ* (*Magnolia compbellii*). Of the conifers, *Taxus* and *dhengre salla* (*Taxus baccata*) occur at the higher elevations in the Tonglu Range; but further towards the Phalut-Raman ridge, *Taxus* is replaced to a great extent by *hemlock*, *tengre salla* (*Tsuga brunoniana*) between 8,000 and 9,500 feet which merge into silver fir, *gobre salla* (*Abies densa*), rhododendrons (*R. arboreum*, *R. campanulatum* and *R. grande*), birch and *saur* (*Betula utilis*) higher up.

Broad effects of
Government's
forest policy on the
flora of Darjiling
district

It is interesting to note that the only reserved forest in Bengal in 1865 was situated on the Senchal dome between Jore-Bungalow and Kurseong. Thereafter, with the growth of Government's forest policy more forests came to be reserved in the district which are now contained in the Darjiling, Kurseong and Kalimpong Forest Divisions.

The first working scheme for the management of the forests in the Darjiling Division was drawn up by D. Brandis in 1879. It was revised in 1882 by W. Schlich. Up to 1892 the forests of the Darjiling Division were worked in a desultory fashion for timber and firewood. Permits were issued with a fixed price per tree and the permit-holder selected and removed the best trees in the forest. Hollow or defective trees, which should have been removed on silvicultural grounds, were allowed to accumulate in the forest. This is the main reason for the present poor condition of the crop.

The first regular working plan, prepared by Mansion, came into effect from 1892-93. It prescribed a rotation of 160 years in five periods of 32 years each. The forest was accordingly divided into five periodic blocks; the first or regeneration block and the fifth were closed to grazing. The chief defect of Mansion's plan was that only about a third of the original crop was removed in the regeneration felling and the removal of the remaining two-thirds caused a lot of damage to the young crop. In 1912 Grieve's plan was introduced. Its main object was to avoid the second felling which usually maimed the regeneration established after the first. This plan excluded grazing land as unworkable and included all regeneration areas under a 'Plantation Working Circle.' The remaining area was divided into High Forest and Coppice Working Circles, the latter to be worked on a 30-year rotation for the supply of firewood to tea gardens. For the High Forest a rotation of 150 years and a felling cycle of 25 years were adopted.

The next working plan, prepared by Baker, was introduced in 1921 and the clear felling followed by *taungya* planting recommended by him has since been followed in the three forest divisions in the district in all areas below 7,500 feet where the ground level is not too precipitous. The *taungya* system has produced most of the fine young plantations to be seen in the Darjiling hills. *Taungya* is a Burmese word meaning (*taung*—hill and *ya*—cultivation) shifting cultivation where the cultivators cut some or whole of the tree crop, burn it and raise field crops before moving on to another site and repeat the process within two or three years. Each year some blocks of forest are marked out for clearing. When the timber and firewood have been removed, cultivators are invited to come into these areas. They clear the land burning off the small wood, and cultivate it with crops, usually maize or millets. No rent is paid by them but in return for the crop, which is usually abundant owing to the richness of the forest soil, they plant forest trees among the crop. The operation is repeated in the second year, but by the third the trees usually grow too big to allow cultivation between them, when the cultivators move on to new plots leaving behind a patch of thriving hill forest.

In Chaudhuri's plan (1929-37) *Cryptomeria* was given such importance that a *Cryptomeria* Working Circle in the Ghum-Simana Range was forced to raise the species to supply box planks for the tea industry. But as the timber was too soft and spongy to suit such purposes, it is now used instead for interior panelling and production of paper pulp, chip-board, etc. Chaudhuri's plan provided for continuance of clear felling and regeneration in all accessible areas. Macpine's Plan (1940-51 to 1959-60) provided for clear felling in stripes along the contour with artificial regeneration. It was revised after the 1950 landslides. Now there are Working Circles for Hill Timber and Fuel-cum-Packing Timber. At lower elevations *sal* forests are being converted into teak plantations and eucalyptus is also being raised to meet the requirements of paper pulp production.¹

The first working plan for the forests in the plains portion of the Kurseong Division was drawn up by Hatt (1902-18) which prescribed two Working Circles, namely, Sukna and Kurseong and provided for selection and improvement fellings with a felling cycle of 15 years. Gent's Working Scheme (1919-26) sought to provide opportunities for finding out the best method of regenerating *sal* and other species. Datta's Plan (1929-49) prescribed clear felling with artificial regeneration for *sal* forests in the plains and selection with improvement felling for similar forests in the hills. Rotation for the former was fixed at 80 years. The next working plan, which embraced both the plains and hill portions,

¹ Source : Divisional Forest Officer, Darjiling Division.

provided for clear felling and artificial regeneration with *sal* for the plain areas, teak for the valley forests and *taungya* for the hills. Disastrous landslides of 1950 and the requirements of the Five-Year Plans necessitated revision again and a new working plan (1954-55 to 1963-64) prescribed clear felling with artificial regeneration with *sal* setting apart large areas for growing teak. It also provided for growing timber and fuel wood in the hills. Of the 71,815 acres of reserved forests in the Kurseong Division, about 47,000 acres are considered as workable and the rest are treated as protected forests for prevention of landslides and soil erosion. The system of clear felling followed by planting under the *taungya* system has proved successful. In the plantations raised in the plains and lower hill forests *sal* and teak feature prominently. In addition a good number of bamboos are planted every year. In the middle hill forests *sour*, *pipli*, *toon*, *utis*, *panisaj*, *malagiri* and *dhupi* plantations are frequently met with. In the upper hill forests plantations are raised with *champ*, *kapasi*, *sour* oaks, *maya*, and *dhupi*.

In the Kālimpong Forest Division the first working plan (1896-1905) prepared by French dealt with *sal* bearing areas where selection fellings on a 10-year cycle were prescribed. As a result about 90 per cent of *sal* trees having a girth of 7 feet or more were removed. In the second working plan of Thinne (1906-21) selection felling of *sal* trees continued on 15 and 20-year cycles in the various ranges. In the third working plan of Cowan (1924-43) clear felling with artificial regeneration by *taungya* was prescribed on a 80-year rotation. For the upper hill areas, clear felling on a rotation of 120 years was prescribed. In the fourth working plan (1934-35 to 1944-45) drawn up by Pal clear felling with artificial regeneration by *taungya* was prescribed on a 60-year rotation and faster growing miscellaneous hill species were prescribed with a rotation of 100 years for the upper hill areas. The fifth working plan (1947-48 to 1958-59) followed the previous plan in its salient features. In the sixth working plan (1957-58 to 1966-67) regeneration of *sal* on a 80-year rotation and raising of more teak trees on the same rotation periodicity are being carried out. Compared to the Kurseong and Darjiling counterparts the development of the Kalimpong Forest Division has been much slower due to the steep terrain, bad communications, shortage of labour, sparse population, poor local demand for forest produce and absence of wood-based industries. "The Division is now passing through a stage of active development in all spheres. . . It was felt that with a view to quick conversion of mature and over-mature forests, it was no longer desirable to depend exclusively on the permanent forest village settlements with their dwindling labour supply. Scheme for paid plantations was taken up for the first time, and the annual target of plantations showed a sharp rise of nearly 50 per cent. For the first time, development of roads in inaccessible forest areas was thought of in a big way and 9 miles (14.4 km.) of tar-macadam road was constructed on

a difficult terrain in Jaldhakā Range. . . A new metalled road taken along the Labha-Lulagaon ridge extending over 14 miles is nearing completion ; old roads and extraction paths are being progressively improved and many new roads into inaccessible forest areas are being planned. . . Another new development has been the major decision to allot certain areas to the raising of quick growing species.

"The Division has a total forest area of approximately 1,32,660 acres of hill forests with a very high density of crop, almost everywhere. Of this, only 15,840 acres stand converted leaving a balance of approximately 1,16,000 acres. Much of this vast forest area is mature or over-mature and has almost ceased to put on any increment. It is most uneconomic to retain this locked up capital for long and a quick conversion to young crop is all that scientific forestry can aim at. . . The first and foremost task will, therefore, be to construct a number of good all-weather motorable roads forming a network of communication through forest areas. . . The future forest roads that will open up the largest possible area of exploitable forests, are (1) Chunabhati-Lulagaon Road *via* Nimbong (about 25m.) to link up with the existing Labha-Lulagaon Road, (2) Labha-Rechila-Chack Road (about 20 m.), passing through forests of Kolbung, Rushet and Rhenok, (3) Extension of Samsing Hill Motor Road to Tempola (approx. 3 miles), (4) Labha-Paktham Road *via* Kolbung and Khampung (about 6 miles), (5) Dalingkot-Pashiting Road *via* Ambyok and Pankhasari (approx. 20 miles), (6) West Neora Valley Road to open up forests of West Nar (approx. 10 miles), (7) Paren-Tangta Road *via* Chichu and Ruka (approx. 20 miles), (8) Link road connecting Samsing Hill Road to Paren-Tangta Road (low priority), (9) Mo-Pankhasari Road *via* Thosum and Rechila (low priority), and (10) Tangta-Rechila Road through Ruka block (low priority).

"There is much need for introduction of improved logging technique and mechanical extraction of timber from coupe to road side. Large-scale use of gravity and portable power ropeways, skyline cranes and mountain tractors are likely to solve this problem and planning on this line is already in progress. Locating saw mills and wood-based industries in the close vicinity of the forests and use of portable power saws inside the forest may also go a long way to rapid development of forestry in this area. . . This Division has the potentialities of supplying not only high grade constructional and furniture timber, but also the essential raw materials for a number of plywood and veneer factories and of course more than one unit of paper and newsprint mills when the forests are opened up, developed and fully exploited.

"Perhaps, nowhere else in the State, the reserved forests serve a better role of protecting the catchment of a very large number

of rivers that originate from the Himalayas and flow into the plains of northern Bengal. But the conditions are most appalling in lands outside reserved forests. ..The devastating landslips in the Lish river catchment and elsewhere in this subdivision are just writings on the wall and a grave pointer to the shape of things to come, and much remains to be done in the field of conservation of Khasmahal forests, and soil conservation and extension of forestry in lands outside the reserved forests.”¹

Game laws and measures for preservation of wild life

Conservation of wild life is so recent a concept that it did not merit any mention in the previous gazetteers. Prior to 1865, working schemes for forests were prepared mainly for exploiting the produce without any reference to the fauna inhabiting them. The Forest Act of 1865 prohibited for the first time the collection and removal of elephants' tusks and hides. Efforts of Brandis and Baden Powell resulted in the promulgation of the Indian Forest Act of 1878 which extended the definition of 'forest produce' to include all wild animals. But up to 1918 the emphasis was on improving the flora by silvicultural operations, and after 1918 conversion of irregular forests into uniform forest communities by clear felling and planting—a practice which is still pursued. Within the compass of the Indian Forest Act of 1878 (later codified as Indian Forest Act I of 1927), rules were framed in Bengal in 1915 to regulate hunting, shooting and fishing within the reserved and protected forests, classifying them into two categories, namely, Class A forests in which hunting, fishing, shooting or trapping was totally prohibited for forming wild life sanctuaries or preventing the extinction of any species, and Class B forests in which similar activities were allowed only under permits. These rules also prohibited shooting from motor vehicles, using lights or flames, lying in wait near water-holes or salt-licks, hunting by explosives, etc., and authorized each conservator to declare any block or blocks of forests or specified animals closed to game. The close and open seasons for various reptiles, birds and animals were also specified in a schedule to the said rules. The Elephant Preservation Act of 1879, as amended by the Elephant Preservation Act (Bengal Amendment) of 1932 and the Bengal Rhinoceros Preservation Act of 1932 provided special protection to these animals which neither the Indian Forest Act nor the Wild Birds and Animal Protection Act of 1912 could ensure. In the conference held in 1935 for devising ways to preserve wild life more effectively, special legislation applicable to areas outside the forests (where game birds and animals had no protection at all) was considered and the Wild Birds and Animals Protection Act of 1912 was described as “perfectly useless”. The Conservator of Forests, Bengal, suggested to the conference that every province should introduce an Act of its own on the lines of the Punjab Wild Animals and Wild Birds Protection Act of 1934 whereupon it was decided

1 *West Bengal Forests : Centenary Commemoration Volume*. Calcutta, 1964. pp. 97-98.

that a model all-India Act, in replacement of the existing ones, was not feasible as conditions varied widely in different parts of India. Things continued in this manner until the West Bengal Wild Life Preservation Act of 1959 replaced the Wild Birds and Animals Protection Act of 1912. This new Act listed a large number of animals and birds for which the whole year may be notified as closed to game. This was done to ensure preservation of as many species as possible. Apart from stricter restrictions on the method of hunting, the Act provided for the issue of licenses, setting up of wild life sanctuaries, and lawful business in birds and animals. Besides, the Indian Fisheries Act of 1897 and the rules made thereunder prohibit the use of fixed engines, construction of weirs and use of nets of certain specifications in all rivers and streams of Jalpāiguri and Dārjiling districts.

In addition to these legislative measures, the Government of West Bengal uses various publicity media to foster a healthy consciousness among the general public for preservation of wild life. The Forest Department also runs two game sanctuaries in Dārjiling district for propagation of the various species for which introduction of new foodstuff, artificial provision for salt and water and other welfare measures are being experimented upon. There has, however, been no comprehensive study of migration habits, sex ratio and the breeding potential of wild animals and authentic information about their minimum and optimum habitat requirements are also not precisely known.

The Senchal Game Sanctuary was established in November 1940 to provide complete protection to high-altitude fauna of temperate regions. It consists of 15.27 sq. miles of reserved forests situated at an elevation ranging between 6,000 and 8,000 feet and preserves, among other species, the Himalayan bear, barking deer, goral, tahr, serow, etc.

**Senchal Game
Sanctuary**

The Mahanadi Wild Life Sanctuary was opened in 1955 in the Kurseong Forest Division on 49.12 sq. miles of reserved forests stretching from the plains to an altitude of 2,500 feet. The most important consideration that led to its creation was protecting the Indian bison found in these forests and the adjoining erstwhile private forests under Baikunthapur Raj Estate. Bisons, spotted deer, barking deer, tigers and elephants comprise the principal fauna while wild dogs, jungle cats, leopard cats, civet cats, porcupines and scaly ant-eaters are also worthy of mention. Recently, baboons and black-capped langurs have been introduced in the sanctuary.

**Mahanadi Wild
Life Sanctuary**

Jungle fowl, pea fowl, pigeons and doves are common feathered games which are found in the sanctuary in association with birds like herons, egrets, storks, king-fishers, rollers, swifts, barbets, wood-peckers, swallows, babblers, thrushes, warblers, robins,

orioles, drongoes, sunbirds and flower peckers—to name only a few of the feathered specimens.

There has been no census of the denizens of the sanctuary. It is, however, officially stated that, "there is no doubt about the gradual increase in bison population and on present indications, it will be safe to predict a population of twentyfive to thirty. Spotted deer are more common among the deer community and are becoming conspicuous with their increasing numbers. Tigers, though one of the chief attractions of North Bengal, continue to be rather scarce."¹ It should, however, be admitted that owing to constant migration of animals from the sanctuary to forests outside, an accurate census is not feasible although one is contemplated in the near future.

The sanctuary being located on the Bhabar tract, there is acute scarcity of water during the dry months. To solve this difficulty, a weir is being constructed on the Mahānadi at a cost of about Rs. 8 lakhs. An artificial lake is designed to provide swimming, boating and fishing facilities to the tourists who may also stay at the tourist bungalow on a hillock and visit different spots along the 50 km. of well-laid-out roads connecting the various parts of the sanctuary.

Due to variations of altitude and alignment of hill spurs the climate and consequently the fauna vary in different parts of the district. Zoogeographically the plains of the Dārjiling district stand at the junction of the Indo-Malayan and Indian sub-regions of the Oriental region, but the northern hilly portion lies largely in the Indo-Chinese sub-region. But beyond the altitude of 10,000 feet approximately, it merges into the Tibetan Palaearctic region. All these factors are responsible for the richness and variety of animal life, especially avifauna, of the district. Seasonal variations occur in the populations and varieties of birds due to influx of migrants from the northern latitudes and higher altitudes.¹

The mammals comprise 80 to 90 species, some of which are dealt with below. There are two kinds of monkeys, the common Rhesus Macaque (*Macaca mulatta* Zimmerman) and the Nepal Macaque (*Macaca assamensis pelops*); the latter may often be seen on Birch Hill in Dārjiling. The Himalayan langur (*Presbytis entellus* Dufresne) favours rather colder regions. Cats are well represented. The Indian tiger (*Panthera tigris* Linnaeus) is common in the plains and has been known to ascend as high as 10,000 feet in the hills. Leopards (*Panthera pardus* Linnaeus) are likewise common and may also be found at high altitudes. Among the rarer cats are the Nepal Clouded Leopard (*Neofelis*

¹ *ibid.* p. 246.

² Source : Director, Zoological Survey of India.

nebulosa macrosceloides), the East Himalayan **Marbled Cat** (*Pardofelis marmorata charltoni*) and the **Golden Cat** (*Profelis t. temminckii*). The second is an elegantly marked creature, attaining to a size of nearly 2 feet in length from nose to base of tail, which is 15 inches. It chiefly keeps to the warmer slopes and is very similar to but smaller than the clouded leopard, while the leopard cat (*Felis bengalensis*), also of warmer slopes, is the miniature of the common leopard. These two cats never become quite tame, however young they may be captured. They are wonderfully active in all their movements. Other cats are the pretty Horsfield's Leopard Cat (*Prionailurus bengalensis horsfieldi*), the Fishing Cat (*Prionailurus viverrinus*) and the Himalayan Jungle Cat (*Felis chaus affinis*)—the last being the commonest. The principal species of *viverridae* found in the region are the Tiger Civet (*Prionodon pardicolor*) and the Naga Hills Palm Civet (*Paguma larvata neglecta*) which occur above 2,000 feet while other varieties, namely, the Large Indian Civet (*Viverrra zibetha* Linnaeus), the Bhutan Duars Little Civet (*Viverricula indica baptistae*), the Northern Palm Civet (*Paradoxurus hermaphroditus pallasii*), the Binturong (*Arctictis binturong* Raffles) and the spotted Linsang (*Prionodon Pardicolor* Hodgson) are found in the hills and the plains. The last-named animal has a remarkable combination of feline and viverrine characters in its structure. While it is typically civet-like in build, with a pointed muzzle, elongated body and short limbs, its golden colour and bold black spots distinguish it at once from other civets. The small Indian mongoose (*Herpestes auropunctatus* Hodgson) and the Indian grey mongoose (*H. edwardsi* Geoffroy) are occasionally found in lower valleys. The crab-eating mongoose (*H. urva*) is also found both in the hills and the plains. It is a creature of considerable size, measuring 2½ feet in length including the tail. There are three species of *Canidos*—the Himalayan jackal (*Canis aureus indicus*), the hill fox (*Vulpes bengalensis*) and the Nepal wild dog (*Cuon alpinus primoevus*), but the last is seldom met with. Two kinds of bear occur, the Indian sloth bear (*Melursus ursinus* Shaw) and the Himalayan black bear (*Selenarctos t. tibetanus*). The former, arboreal in its habits, lives in the plains and foothills while the latter is common up to 7,500 feet but occasionally comes down to the plains. It does considerable damage to the maize crop in the hills, destroying more than it can eat. It also feeds on roots, fruits, carrion and sometimes kills cattle. All bears are short-sighted and, if stumbled upon, are likely to attack. An interesting animal is the cat-bear or the panda (*Ailurus f. fulgens*) found in the hill forests upwards of about 7,000 feet. It is a vegetable feeder and easily tamed. It is of reddish colour above, darker below, the greater part of the face is white and the tail is ringed. Many of its chestnut-red skins may be seen in Dārjiling furriers' shops.

There are numerous others, martens and weasels. The North Indian yellow-bellied marten (*Charronia f. flavigula*) and the

Indian marten (*Mustela flavigula*) are of predatory habits. The latter, found from the lower slopes up to about 7,000 feet, feeds on birds, reptiles and small mammals, and when opportunity offers, kills poultry to an almost incredible extent. It is also a persistent robber of beehives. In colour it is dark brown above, paler below with a white chin and throat and yellow breast. The yellow-bellied weasel (*Putorius cathia*) is a pretty creature and not uncommon at about three to four thousand feet. It usually roams in parties of about half-a-dozen and the leader is the very incarnation of courage and daring attacking anything, however large, in defence of its family. It is of a uniform dark brown colour above and yellow below. Hodgson mentions that it is "exceedingly prized by the Nepalese for its service in ridding houses of rats," that it is easily tamed, and is trained by the rich "to attack large fowls, geese, and even goats and sheep."¹ Squirrels, rats, mice and bats are far too numerous for details of all to be given here but two squirrels deserve mention—the Himalayan flying squirrel (*Petaurista magnificus* Hodgson) inhabiting the hills between 5,000 and 10,000 feet and the Assam giant squirrel (*Ratufa g. gigantea*) found both in the plains and the hills. The former is dark chestnut coloured above orange below. Its head and body measure about 15 inches and tail over 20 inches. It may sometimes be seen in the heart of Darjiling town and it is interesting to watch it "flying from one tree to another which it does by spreading out the membrane that connects its limbs and springing from a height in one tree to land lower down on a neighbouring one. The other species are the Giant flying squirrel (*Petaurista elegans* Muller), the Particoloured flying squirrel (*Hylopetes alboniger* Hodgson) and the Malayan giant squirrel (*Ratufa bicolor* Sparrman). They feed on fruits, leaves, buds etc. The Indian porcupine (*Hystrix indica* Keer) is found at elevations up to 5,000 feet. It is very destructive to the potato crop. Its flesh is much prized as an article of food. The Indian bush rat (*Golunda ellioti* Gray) and the palm mouse (*Vandeleuria oleracea* Bennett) occur mainly in scrub forests. The common house rat (*Rattus rattus* Linnaeus), the Himalayan rat (*R. nitidu* Hodgson), the house mouse (*Mus musculus* Linnaeus), the Indian mole rat (*Bandicota bengalensis*) and the bamboo rat (*Cannomys badius* Hodgson) cause considerable damage to human property and cultivation and spread such diseases as the bubonic plague, rat-bite fever, etc. The Sikkim vole (*Pitymys sikimensis* Hodgson) is an interesting rodent of this area, which is only found at high altitudes. Three porcupines and one hare, namely, the Indian hare (*Lepus nigricollis* F. Cunier) also occur in the district.

The gaur (*Bibos gaurus* H. Smith), usually called bison, and wild buffalo (*Bubalus Bubalis*) are representatives of ruminants belonging to the sub-family *Bovinae* of *Bovidae* family in *Artiodactyla* order. The gaur, characterised by a ridge in the withers,

¹ H. H. Risley and others—*The Gazetteer of Sikkim*, Calcutta, 1894 p. 237

and white legs is found in the forests of the foothills and the Terai and is strictly preserved. They go about in herds but bulls are sometimes solitary and can be very dangerous. The compressed horns have an average length of 27 inches and a bull may stand 6 feet 4 inches at the shoulders. Due to its preservation, the gaur population is on the increase and herds of a dozen or more are not rare today in some parts of the Duars forests.

Two species of the goat tribe are found in the hills, the Jamrach's serow (*Capricornis sumatrensis jamrachi*) and the brown Himalayan goral (*Nemorhaedus hodgsoni*) at elevations between 2,000 and 9,000 feet. The former loves wooded gorges and rocky ravines above 6,000 feet and the latter precipitous slopes between 3,000 and 8,000 feet. They afford fine sport if stalked on foot. The wild pig (*Sus scrofa* Linnaeus) is found throughout the district up to 5,000 feet. The Takin (*Eudorcas taxicolor* Hodgson), the Himalayan tiar (*Hemitragus jemlahicus* H. Smith) and the bharal (*Pseudois navaur* Hodgson) are also important constituents. The bharal in its structure and habits holds a place intermediate between the sheep and the goat. There are four or five species of deer, the commonest being the Bengal barking deer or kakar (*Muntiacus muntjak* Zimmermann), the hog deer (*Axis porcinus* Zimmermann) and the sambhur (*Cervus unicolor niger*). The former is found all over the district (up to 7,000 feet) while the last is the largest inhabiting the plains and hills up to 3,000 feet. The spotted deer or chital (*Axis axis* Erxleben) is the most beautiful of them. It is not common and loves glades and forest near streams. It is gregarious and is strictly preserved. The barking deer has little stamina for sustained speed and extensive leap, but is unmatched for manoeuvrability amidst tangled underwood. They have indeed a weasel-like flexibility of spine and limbs enabling them to escape from their great enemy, the wild dog. Previously, the local people used to hunt it very often as the Lepchas believed that its foetus, dried and powdered, was of great efficacy in difficult confinements.¹

The Indian elephant (*Elephas m. maximus*) is now rather rare in the district. It is usually found in herds but old males live alone and are apt to be vicious. Elephants are destructive to crops, especially paddy. *Kheddas* used to be held in the Terai many years ago.

Many kinds of bats, namely, the Indian false vampire (*Megaderma lyra* Geoffroy), (*Rhinolophus roux* Temminck), the whiskered bat (*Myotis mystacinus* Kuhl), the pipistrel (*Pipistrellus babu* Thomas) and the greater yellow bat (*Scotophilus heathi* Horsfield) are found in caves and forests. They feed on insects. The Indian flying fox (*Pteropus giganteus* Brinmick) is frugivorous and causes considerable damage to orchards. Chinese pangolin

¹H. H. Risley—*po. cit.* pp. 238-9.

(*Manis pentadactyla* Linnaeus), a very peculiar mammal, is also found in the district.¹ The Eastern mole (*Talpa micrura* Hodgson), the common tree shrew (*Tupaia glis* Diard) and the grey musk shrew (*Suncus murinus* Linnaeus) are also available. The Eastern mole has much the same habits as the European one, but does not throw up mole-hills as the other species does, although it makes its runs near the surface of the ground in the same way. It is mostly found at an elevation of about 4,000 feet, but also occurs as high as 8,000 feet.

Avifauna

In few parts of the world of an equal area are birds more varied in species than in Dārjiling and Sikkim. They differ in size from the gigantic lammergeyer or bearded vulture, of about 4 feet in length and $9\frac{1}{2}$ feet across the out-stretched wings, to a tiny flower-pecker, *Dicoeum ignipectus*, barely 3 inches from the end of its beak to the tip of its tail. Some of the birds are very beautiful. Those commonly seen on river banks are the kingfishers, fork-tails, redstarts, a dipper and a whistling thrush. The fork-tails frequent the darkly wooded mountain torrents and are at home amidst their roar and spray. In winter the white-capped redstart (*Chimarrhornis leucocephala*) is common on the lower reaches of the streams but goes higher up to breed. It has a black coat and a snow-white cap and is rufous below. The whistling thrush is a large handsome yellow-billed bird, over a foot long and of a black colour overlaid with glistening cobalt-blue. It is, perhaps, the most numerous of birds frequenting stream-sides between 3,000 and 8,000 feet elevation. Among the fly-catchers (*Muscicapidae* spp.), of which there are about 27 species, the fairly blue-chats are the most remarkable. Their males are all brilliantly marked with different shades of glistening blue but the females are clothed in brown. *Nitidula Hodgsoni*, the pigmy blue fly-catcher, which occurs between 4,000 and 8,000 feet is one of the smallest and prettiest of Dārjiling birds. It is only $3\frac{3}{4}$ inches long. The Verditer fly-catcher (*Stoparola melanops*) is strikingly coloured, being of an almost verditer-blue, and as it keeps to the roadsides, is one of the best-known birds. A beautiful Paradise fly-catcher (*Terpsiphone affinis*), is found in the lowest valleys; the full-grown male has a black head and crest with the rest of the plumage white with black shafts and a tail some 14 inches long.

Of nearly 550 species of birds noticed in the district, more than half are passeriformes (i.e., sparrow-like), the largest families being the *Timaliidae* (laughing thrushes, babblers, etc.) with 61 species; *Turdidae* (chats, thrushes, etc.) with 56, some of which, such as, (*Geocichla citrina*), are fair songsters; *Sylviidae* (warblers) with 60; and the *Fringillidae* (finches) with 22. The passeriformes found in the district include some of the most beautiful birds, especially the fly-catchers (*Muscicapa* spp.), minivets (*Pericrocotus*

¹Source : Director, Zoological Survey of India.

spp.), the Dārjiling fairy bluebird (*Irena puella sikkimensis*), Orioles (*Oriolus Trailii*), numerous species of sunbirds and the long-tailed broadbill (*Psarisomus dalhousiae*). Of barbets, *Megalaima grandis*, the largest species, is very common and excellent eating. The ubiquitous Indian house-sparrow (*Passer domesticus indicus*) is not seen in Dārjiling town where the more pleasing Malay tree-sparrow (*Passer montanus malaccensis*) reigns supreme.

The best represented families in the *Coraciiformes* group are the *Picidae* (woodpeckers and flowerpeckers) with 15 species; the *Cuculidae* (cuckoos) with 16 and the *Asionidae* (owls) with 14. Amongst the woodpeckers the handsomest is the large (14 inches long) yellow-napped woodpecker (*Chrysophlegma f. flavinucha*) and Tickell's golden-backed woodpecker (*Chrysocolaptes g. guttaeristatus*); the tiny Indian Rufous Piculet (*Sasis q. ochracea*) is also found. They are most numerous in low hot valleys but several of the species are met with at considerable elevations. Among the cuckoos the more notable are the English cuckoo, whose call may be heard all day long in the season and the very pretty emerald cuckoo (*Chalcites m. maculatus*) having a brilliant emerald-green coat above and white and shining green below. The fork-tailed cuckoo, resembling the king-crow, is also very common.

Female hornbills (*Tockus* spp.) have the peculiar habit of plastering up the entrance of the hole in which they incarcerate themselves during the rearing of the young with their own ordure leaving only a vertical slit through which they are fed by the males. Five species of hornbills found in the district including the Indian great hornbill (*Dichocheros b. bicornis*) which is four feet long and has a large yellow casque on the top of its bill. Eight species of kingfisher, some of the most beautiful birds of that order, frequent the streams of the lower valleys and are rarely found above 4,000 feet. The tiny Indian three-toed kingfisher (*Ceyx e. erithaca*), a forest species, which, when in flight, resembles a gem of vivid lilac or gleaming blue. *Halcyon coromandelianus*, another beautiful species, is of a nearly uniform rich rufous colour overlaid with shining peach. The largest of all is crested and spotted black and white. *Alcedo bengalensis* resembles the English kingfisher but is smaller. Fifteen owls (*Bubo* spp.) are found, but one belongs to a separate family. They vary in size from the forest eagle-owl (*Huhua nipalensis*), which measures 2 feet in length and is powerful enough to kill peafowl and cats, to the tiny pigmy owlet (*Glancidium brodiei tubiger*), measuring but 6 inches. The brown wood owl (*strix* spp.), owl (*Athene* spp.), scop owl (*otus* spp.), barn owl (*Tyto alba*), bay owl (*Phodilus badius*) etc. prey on rodents, snakes etc.

Accipitral (i.e., hawklike) birds number about 40 and include the Himalayan lammergeyer (*Gypaetus barbatus hemachalanus*),

Hodgson's feather-toed hawk-eagle (*Spizaetus n. nipalensis*), which is about $2\frac{1}{2}$ feet long and found mostly below 4,000 feet, the Himalayan rufous-bellied hawk-eagle (*Lophotriorchis k. kieneri*) and the handsome, bold miniature falcon, the Himalayan red-legged falconet (*Microhierax c. coerulescens*). Vultures (*Gyps* spp.) frequent visitors rather than permanent residents, particularly in the hill areas of the district. The kestrel is common in the cold weather but towards the end of September the kite migrates in large number to the plains. House crow (*Corvus splendens*), jungle crow (*C. macrorhynchos*), pariah kite (*Milvus migrans*), Himalayan griffon vulture (*Gyps himalayensis*), long-billed vulture (*G. indicus*) and lesser adjutant (*Leptoptilos Javanicus*) are the usual scavenger birds.

The bulbuls (*Pycnonotus* spp.) are also largely represented. The most numerous is *Molpastes bengalensis*, seen in large flocks amid scrub jungles everywhere up to 4,000 feet. *Alcurus striatus*, the striated green bulbul, is almost as abundant but keeps to the tree tops at elevations over 5,000 feet. The beautiful fairy blue birds *Irena pucilla*, occurs at lower altitudes but is not common. The upper part of the male is glistening cobalt-blue while the lower is velvet-black. Of the stone-chat family the two most notable members are the magpie robbin (*Copsychus saularis*) and the shama (*Kitacincta macroura*), both famous songsters. The latter is usually found lower down the hot valleys only but the former is common around 3,000 feet. Two thrush-tits are among the most beautiful of the larger birds; *Cochoa viridis* is 15 inches long and of a bluish-green colour with head, neck and tail cobalt blue while *C. Purpurea* of about the same size, is more common and almost as beautiful with a bluish-grey and purple coat. Both are found in the forests from about 6,000 feet upwards. Tits are numerous and varied. One of them *Melanochlora sultanea*, which occurs up to 4,000 feet, is remarkably coloured. Its body is greenish-black with the forehead and a long prominent crest golden-yellow. The common swallow (*Hirundo rustica*) arrives about the end of January and leaves in October. It begins breeding in March and brings up two to three broods in the year. The other species *H. nipalensis* is readily distinguished by its rusty coloured rump. It builds a covered nest with a long tunnel for entrance instead of the open cup-shaped nest of the common swallow. Hodgson's martin (*Chelidon nipalensis*) remains throughout the year and is abundant up to 5,000 feet.

There are about a dozen species of pigeons and doves, some of which are found at high elevations only. One variety, common in the plains, is the Bengal green pigeon (*Crocopus p. phoenicop-terus*) while in the hills, the Kokla green pigeon (*Sphenocercus s. spenurus*) and the Himalayan pintailed green pigeon (*Sphenocercus a. apicaudus*) are generally met with. A very fine species, Hodgson's Imperial pigeon (*Ducula badia insignis*), is found in the hills up to 6,000 feet. The ashy wood pigeon (*Columba*

pulchricollis) is found between 6,000 and 8,000 feet and may be occasionally seen on Birch Hill (6,874 feet) in Dārjiling town and, although a bird of high altitudes, it does occur in the foothills during the winter. The speckled wood pigeon (*Dendroteron hodgsonii*) is generally found at higher elevations but it has been noticed at elevations as low as 5,500 feet. The beautiful emerald dove (*Chalcophaps i. indica*) occurs from plains level up to 6,000 feet. The Indian bar-tailed cuckoo-dove (*Macropygia unchall tusalia*) is a forest bird occurring in the plains as also in the hills up to 7,400 feet.

Game-birds are of 8 species. The Indian red jungle-fowl (*Gallus bankiva murghi*), the ancestor of domestic fowls, is common in the forests of the plains as also of the hills up to about 4,500 feet. The black-backed kalij pheasant (*Gennoeus melanotus*) ranges from the foot-hills up to an elevation of 8,000 feet and, although a forest bird, is occasionally seen in the tea gardens. The monal (*Lophophorus impejanus*) formerly occurred on the Singalila range at altitudes between 10,000 and 12,000 feet but it is doubtful if any survive there now or at Senchal (8,600 feet) where it was reintroduced by the Fishing and Shooting Club. The cock of this species is resplendent with metallic bronze and purple and has a metallic green crest. The crimson horned pheasant or tragopan (*Tragopan satyra*) is the monal of the hill folk and is found between 8,000 and 12,000 feet. It occurs on the Singalila range and specimens are frequently brought to Dārjiling town. The lower plumage of the cock is crimson, spotted with white, while blue fleshy horns are present above each eye. The blood pheasant (*Ithaginis cruentus*) is found on the same range between 10,000 and 12,000 feet. The cock is green below with splashes of crimson on the breast. Two varieties of partridges are found in the hills—the Assam common hill partridge (*Arborophila t. torqueola*) and Blyth's rufous-throated hill partridge (*Arborophila r. rufogularis*), the latter being common in forests between 2,000 and 3,400 feet and the former from 7,000 to 10,000 feet. The common grey quail (*Coturnix c. coturnix*) is sparingly found in the hills during winter at elevations between 5,000 and 6,000 feet. There are two varieties of three-toed quail, namely the Burmese bustard quail (*Turnix suscitator plumbipes*) and the Indian large button quail (*Turnix t. tanki*). Among the remaining orders, the woodcock (*Scolopax r. rusticola*) is found in the hills, especially in cardamom cultivations. The wood snipe (*Nemoricola n. nemoricola*) and the eastern solitary snipe (*Neospilura solitaria*) also inhabit the hills, the former being much commoner than the latter and seen up to an elevation of about 3,200 feet while the other species ascends up to 10,000 feet or even higher, occasionally descending to the foot-hills. The fantail snipe (*Capella g. gallinago*) and the pintail snipe (*Capella stanura*) are both regularly shot in the district. Among the plovers, the eastern golden plover (*Pluvialis dominicus fulvus*) is found in the Terai but the ibis bill (*Ibidorhyncha struthersii*) is a bird

of high altitudes which sometimes descends in small parties to the beds of the Great Rangit and the Tista in winter. The great white-bellied heron (*Ardea imperialis*), a fine bird, is occasionally seen around the Tista and in the foot-hill forests near the Gulma river. Ducks are poorly represented in the district. The eastern goosander (*Mergus merganser orientalis*) is a handsome species often seen in parties on the Tista while the bar-headed goose (*Anser indicus*) frequents the Rammam river during the winter.

Darjiling district contains nearly a quarter of all species of birds found in the Indian sub-continent, Burma and Ceylon. Birds react to sunny days like human beings and it is on such days, especially in the early mornings and evenings, that they are watched best.

Although a great number of the species are strictly resident in the district, many others are local migrants, moving up and down the hills according to season. There are also the passage-migrants who merely use the district as a port of call on their way from their breeding haunts in Siberia, Tibet or China to the plains of India. The general tendency among all birds in this country is to go north to breed and south during the winter. Thrushes, fly-catchers, willow-warblers, shrikes, swallows, cuckoos, pigeons, woodcock—all breed on the higher mountains and work their way down to the foot-hills and sometimes well out on to the plains during autumn, returning in March and April which is the most convenient time for the bird-watcher since these local migrants do not err beyond two or three days in arriving year after year. Great numbers of migrating finches, larks, pipits, wagtails, swifts, redstarts, a few species of eagle and hen-harriers, snipes, quails and ducks stop over on their way to the plains while huge flocks of geese and cranes from afar cross over without coming down to earth.

"During the last thirty years," wrote A. J. Dash in 1947, "Darjeeling District has altered considerably owing to rapid deforestation and to an increase of cultivated areas. Birds from the plains such as the House-Crow, the White-breasted Kingfisher, the Blue Jay or Roller are infiltrating up the valleys and changing the character of the Fauna, while Hornbills, Imperial Pigeon and Green Pigeon have almost disappeared from large areas owing to the lack of suitable trees for nesting and feeding. There is however plenty for the bird lover to study and observe and much still remains to be discovered and recorded to complete a satisfactory account of the birds of the District."

Reptiles

The reptilian fauna of the district is represented by about 51 species of lizards and snakes. There is no record of Crocodilians and Testidunes from the mountainous parts, although at least one species of tortoise is found in the Terai. Of the 15 recorded

varieties of lizards, five are Gekkonids (*Gymnodactylus gubernatoris*, *G. khasiensis*, *Hemidactylus boweringii*, *H. flaviridis* and *Platyurus platyurus*); four Agamids (*Calotes versicolor*, *Goniocephalus suberistatus*, *Japalura tricarinata* and *J. variegata*); four skinks of the *Scincidae* family (*Leiolepisma sikkimensis*, *Lygosoma indica*, *L. maculatum* and *Riope punctata*); one Varanid (*Varanus monitor*) and a beautiful glass-snake (*Ophisaurus gracilis*) which, though often mistaken for a true snake, can be readily distinguished from the latter by the presence of eye-lids. Likewise *Japalura variegata*, frequenting the hills up to 9,000 feet, is mistaken as chameleon on account of its rather showy colours. The blood sucker (*Calotes versicolor*) is a very common Agamid. The skinks, popularly known as *Brahmini* lizards or *anjanis* are ground dwellers.

Snakes

There are eleven species of venomous snakes: four of them kraits, two cobras, one coral-snake and four vipers. The largest is the king cobra, or hamadryad (*Naja hannah*) with a record length of 15 feet 5 inches, but specimens over 10 feet are rare. It is found in the lower valleys and seldom ascends above 4,000 feet. The adult is of a uniform brownish-black colour with indistinct darker cross bands while the young is much more gaily coloured, being jet black, beautifully ringed from the snout to the tip of the tail with white bands of about a quarter of an inch or more in breadth and intervening black spaces three or four times as broad. The common cobra (*Naja naja*) measures up to 6 feet 7 inches in length and its poison is also deadly. It usually keeps to the warmer slopes under 4,000 feet. The species displays variable colour, but the Sikkim variety is usually brownish-olive above with a large ocellus edged and centred with black on the dilatable neck while, for a few inches below the chin it is whitish, crossed by a broad black band, the rest of the lower part being black. The lesser black krait (*Bungarus lividus*) and the greater black krait (*Bungarus niger*) are the commonest of this rare species. Little is known about their poison. The Sikkimese krait, *Bungarus coeruleus*, is of blackish brown colour and is not common. *Bungarus bungaroides* is one of the rarest of snakes and has been collected at elevations between 5,000 and 6,800 feet. It goes to over 2½ feet in length, and is not unlike the young of the king cobra, being black, banded with white. The pit-vipers belong to the genus (*Trimoresurus*) and are of a repulsive aspect, having short tails and triangular-shaped heads covered with numerous small scales instead of a few large shields as are found in most other snakes. *T. monticola* of this genus, measuring about 2 feet, is reddish brown with two rows of large, square, black spots along the upper part of the back and a row of smaller ones on each side. *T. carinatus*, another species, is grass-green in colour with a yellowish tail and a white line running along the lower body scales. It is not as heavy as the former, but is about a foot longer. *T. Gramineus*, the third species, is also of grass-green colour but the line along the outer scales is bright red and the tail is reddish.

Both the green species keep to the hot valleys, ascending to no more than 4,000 feet. The venom of the pit-vipers is not deadly but the painful swelling produced by it may last several days. Another species, *Ancistrodon himalayanus*, is very rare. The coral-snake (*Callophis maclellandii*), is red above and white below with a very distinctly-defined black vertebral stripe running the whole length of the body. There are irregularly shaped black bands crossing the sides and the belly but not meeting on the back by about half an inch, and between these black bands is a large ventral spot of the same colour. The head, which is small, is banded black and white. It is not uncommon between 5,000 and 7,000 feet. Considering the large number of venomous species in Darjiling, the low incidence of death from snake-bite in the district is remarkable.

Of the non-venomous species, three attain considerable lengths. The largest of them, *Python molurus*, is usually 12 feet long but individuals of 16 to 20 feet are not very rare. They are found at low elevations and feed on small deer and other mammals. The second in size is *Zaocys nigromarginatus*, a very beautiful snake of the cool forests between 4,000 and 6,000 feet. It is green with a broad black band on each side of the hinder half of its body and tail with the green scales showing black lining at the margins. The smallest of the group is *Zamenis mucosus*, the well-known rat-snake or *Dhaman*, which grows to seven feet in length. *Dryophis prasinus*, a handsome green whip-snake, also grows to 7 feet and is graceful in its movements. Although perfectly harmless, it is, however, of ferocious and aggressive habits.

Other non-poisonous snakes of the district belong mainly to two families, namely *Typhlopidae* (blind snakes) and *Colubridae*. The former is represented by two species, *Typhlops oligolepis* and *T. jerdoni*, which are wormlike small creatures, while the latter consists of several varieties among which the copper-head snake (*Elaphe radiata*) and the wolf snake (*Lycodon aulicus*, *L. fasciatus*) may be mentioned.

Amphibians

Of the frogs and toads, most common are the skipping frog (*Rana cyanophlyctis*), paddy field frog (*Rana L. Limnocharis*), *Staurois afghana*, *Megalophrys parva*, the Himalayan toad (*Bufo himalayanus*) and the Indian salamander (*Tylototriton verrucosus*). The last, though very rare, is the only species of limbed and tailed batrachian, a newt, so far recorded from India in the Eastern Himalayas. They are often mistaken for lizards, the skin of which is rich in scales whereas in the former species no such scale is visible. There is also but one burrowing batrachian, (*Ichthyophis monochrous*, which is fairly common at elevations between 3,000 and 5,000 feet. The amphibians under the family *Ranidae*, genus *Rana*, are generally smooth skinned frogs found in day-time either in water or near it. J. Gammie wrote : "The natives eat

five species, and consider them tasty and wholesome food. They catch them at night by the light of bamboo torches, which so dazzles the creatures that they remain motionless and allow themselves to be caught. . . . When the Lepchas make a bigger catch than they can eat fresh, they gut and smoke-dry the surplus for future use, when they will keep good for years, but get so hard and tough as to require much boiling."¹

"Over 125 species of fish," wrote A. J. Dash in the Darjiling District Gazetteer of 1947, "have so far been recorded from this area. Some of them are found in torrential streams and are remarkably well adapted for clinging to rocks in swift currents. From a zoogeographical point of view, the fish-fauna is of special interest as the area is a meeting place of the Chinese, Malayan and Indian elements of the fishes of the oriental region. Certain specialised hill-stream Chinese and Malayan fishes of this region are not found in the Western Himalayas, but it is remarkable that allied forms, sometimes identical, are found in the Western Ghats and the connected hill ranges of Peninsular India. . . ."

Fishes

As A. J. Dash said, "the chief interest of a visitor to this area, however, lies in the sport that is provided by certain well-known Indian game fishes. All the hill sections of the larger streams and especially the Tista river abound in Mahseer, Katli, Indian Trout and Goonch, generally fished for in clear running streams by means of rod and line. The junctions of smaller streams with the main rivers are usually the most suitable places for angling."

The pride of place among the local fishes goes to Mahseer which is a popular name for several varieties of large-scaled barbel, namely the golden Himalayan Mahseer (*Barbus [Tor] putitora*), of which the length of the head is considerably greater than the depth of the body; the red-finned Mahseer (*Barbus [Tor] tor*), of which the head is shorter than the depth of the body; and the copper Mahseer (*Barbus [Tor] mosal*), of which the head is more or less equal to the depth of the body. The first two species attain considerable weight being more than 50 lbs. each. The Katli (*Barbus [Lissochilus] Hexagonolepis*) possesses large scales and in general facies is similar to the copper Mahseer although seldom exceeding 10 lbs. in weight or 2 feet in length. This species is suitable for culture in ponds and lakes. The Indian Trout (*Barilius Opsarius bola*) also belongs to the carp family and usually weighs below 2 lbs. though specimens of about 5 lbs. have been caught occasionally. It resembles the true trout both in form and sporting qualities. Several attempts have been made to introduce true Trout in the Dārjiling area but it has not been possible so far to acclimatize them on account of the steep courses of the streams and the large amount of silt they carry during the rains. The Goonch is a very large fish not of any sporting value.

¹H. H. Risley and others— *op. cit.* p. 190.

It grows to about 6 feet in length and to a weight of about 250 lbs.

The other major and minor carps are *Labeo rohita*, *L. calbasu*, *L. dero*, *L. dyochilus*, *Chagunius chagunio*, *Catla catla*, *Cirrhina mrigala* and *C. reba*. Apart from these some of the catfishes (*Sihuroids*), such as *magur* (*Clarius batrachus*), *singhi* (*Heteropneustis fossilis*), *bowal* (*Wallago attu*), *pabda* (*Callichrous bimaculatus*) and *tengra* (*Mystus seenghala*) are also found in the district and are relished as food. Some murrells and fresh-water eels add to the list of edible fishes. Among murrells found in muddy tanks and pools, the more common varieties are *Channa orientalis*, *C. marulius*, *C. striatus* and *C. stewarti*, while of the eels the more important are *bain* (*Mastacembelus armatus*), *pankal* (*M. pancalus*), *goichi* (*Macragnallius aculatus*) and *kunche* (*Amphipnous cuchia*). Smaller larvicidal fishes, with or without scales, are many. By eating up larvae and other organisms they exert considerable biological control among the water-dwellers.

Some of the beautiful smaller fishes found in natural pools and streams are prized for aquariums. They are *dudhikha* (*Rasbora daniconius* and *Esomus danricus*), *anju* (*Danio Brachydanio rerio*), *Danio aequipinnatus*, *chanda* (*Ambassis nama* and *A. ranga*), *khalisha* (*Colisa fasciatus* and *C. chunga*) and *bot kai* (*Badis badis*). There are some others found only in the hill streams, namely *Glyptothorax horai*, *G. lineatus*, *G. shawi*, *Garra gotyla*, *Pseudecheneis sulcatus*, *botia durio*, *B. Dayi*, *Noemacheilus botia*, *N. beavani*, *N. savona*, *Amblyceps mangois* and *hara hara*.¹

Invertebrates

According to Dash, "the leeches in the district number 6. They are *Dinobdella ferox*, a dark green cattle leech : *Hirudinaria manillensis* a very large species : *Haemadipsa zeylanica montivindicis* the commonest leech : *Haemadipsa montana* found from 5,000 to 9,000 feet : *Haemadipsa sylvertris* : and *Haemadipsa ornata* the stinging land leech, a handsome black and yellow striped species"

The insect fauna is vast. The district is exceedingly rich in *lepidoptera*, the Tista Valley being famous for the variety found there. Amongst the Swallow-tails there are such beautiful species as *Troides helena carberus*, *Papilio p. Paris*, *Papilio K. Krishna*, *Teinopalys i. imperialis* is considered a prize and is found in Dārjiling : females of this species are rare. Among the moths, the Atlas Moths (*Attacus atlas* and *edwardsi*) attain a span of ten inches or more : two species of *Actias* are also very beautiful. Dragonflies are well represented and many new species have been discovered of late years, some at very high elevations. *Allogaster latifrons* has been found as high as Tonglu (10,000 feet). There

¹Source : Director, Zoological Survey of India.

are some very beautiful species with iridescent wings (*Rhinocypha* species and *Neurobasis chinensis*).

Butterflies are extremely abundant in the Sikkim and Dārjiling Himalayas. In the warmer valleys they are found throughout the year but are relatively scarce from the end of November till after the middle of March. Some of the species which are plentiful at the lower elevations are also noticed, more or less sparingly, over a wide range of altitude but most of those loving the cool forests never go down to the hot valleys. Besides the species mentioned by Dash, the numerous other genera comprise 6 species of *Danais*, 7 of *Euploea*, and 9 of *Mycalesis*, more than 20 of *Lethe*, 2 each of *Blanida* and *Anlocera*, 4 of *Ypthima*, 3 of *Melanitis*, 4 of *Elymnias*, 3 of *Discophora*, 2 of *Enispe*, the lovely *Stichophthalma camadeva*, 2 species each of *Ergolis* and *Euripus*, 3 of *Atella*, the *Cethosia biblis*, the *Cynthia erota* and the swift-flying *Helecyra hemina* and *Sephisia chandra*, 4 species of *Apatura*, 2 of *Hestina*, 5 of *Junonia*, 15 of *Neptis*, 2 of *Cirrhochroa*, the *Pueuder-golis wedah*, the *Stibochiona nicea* and *Hypolimnas bolina*, 5 species of *Argynnis*, the *Dichorragia nesimachus* and *Penthema lisarda*, 7 species of *Limenitis*, 8 of *Athyma*, 18 of *Euthalia*, 2 of *Pyrameis*, 7 of *Vanessa*, 4 of *Symbrenthia*, 3 of *Cyrestis*, 2 of *Kallima*, 13 of *Charaxes*, 2 of *Libythea*, 5 of *Dodona*, 4 of *Abisara*, the *Gerydus boisduvali*, the *Allotinus drumila*, the *Pithecopus hylax*, the *Neopithecopus zalmora* and *Taraka hamada*, 2 species of *Chilades*, 8 of *Cyaniris*, 4 of *Zizera*, 6 of *Nacaduba*, the *Jamides bochus*, the *Niphanda cymbia*, 2 species each of *Lampides*, *Iraota*, *Catochrysops* and *Tarucus*, 4 of *Castalins*, 18 of *Arrhopala*, the *Curetis bulis*, 5 species each of *Zephyrus*, *Ilerda camena* and *Aphnaeus*, 7 of *Tajuria*, the *Hypolycaena erylus*, the *Chliaria othona* and *C. kina*, the *Zeltus etolus*, the *Charana mandarinus*, 2 species each of *Catapoecilma* and *Biduana*, the *Loxura atymnus*, the *Yasoda tripunctata* and *Deudoris epijarbas*, 5 of *Rapala*, 3 of *Sinthusia*, 6 of *Delias*, the *Prioneris clemante*, 3 each of *Terias* and *Mancipium*, 2 each of *Huphina*, *Hiposcritia*, *Nepheronia* and *Ornithoptera*, more than 40 species of *Papilio*, 2 each of *Parnassius* and *Satarupa*, 3 each of *Daimio* and *Coladenia*, 5 of *Tagiades*, the *Odontoptilum sura* and *Iambrix salsala*, 2 each of *Suastas*, *Aeromachus*, *Pedestes* and *Zographetus*, the *Arnetta atkinsoni*, and *Isma cephalo*, *Ochus subvittatus* and *Telicota bambusae*, 2 species each of *Matapa*, *Erionota*, 3 of *Padraona*, 15 of *Baoris*, 8 of *Halpe*, 2 of *Notocrypta*, the *Udaspes folus*, the *Cupitha purreea*, the *Astictopterus olivascens* and *Kerana diocles*, 2 species of *Pithauria*, 4 of *Hasora* and more than 6 species of *Ismene*.¹ Immense crowds of butterflies, composed of many species, may sometimes be seen feeding at certain spots by riversides in the lower valleys and many species may be caught on a single tree bearing scented flowers. But these are the common sorts, the rare ones have to be hunted for in more out-of-the-way places and prized when found. The moths,

¹H. H. Risley and others—*op. cit.* pp. 116-87.

though less known, are more interesting from an economic point of view as several species of them spin tusser-like silk cocoons.

According to Dash : "Beetles are very numerous : some of the finest are *Euchirus macleani*, *Chrysachoa bicolor* and *Chrysachoa chinensis*, the last two being brilliantly coloured. Among the *Orthoptera* is the curious Leaf Insect (*Phyllium scythe*) which even with the legs and the veins of the wings resembles a green leaf. Amongst the *Rhynchota* are *Eurestus grossipes* and *Belostoma indicum* : the last is a huge water bug : and the cicadas, the song of whose males is known so well while the females are voiceless. Two very fine species are *Cryptotympana corvus* and *Tosena melanoptera*. *Hymenoptera* are well represented : one of the finest of these is the very large Hornet (*Vespa magnifica*) which will certainly attack if its nest is disturbed : it has a sting that may prove fatal to man."

Vanishing Zoological types

Hornbills, imperial pigeons and green pigeons have almost disappeared from large areas of the district owing to lack of suitable trees for nesting and feeding. The *monal* (*Lophophorus impejanus*) formerly occurred on the Singalila range at altitudes between 10,000 and 12,000 feet, but it is doubtful if any survive there now or on Senchal.

"The last thirty years," wrote A. J. Dash in 1947, "have wrought great changes in the distribution and number of animals in the District, due to the reduction of the area under forest, the extension of motor roads and a huge increase in the number of gun licences. From the dense forests of the Terai, through the valleys of the Tista, Rangit and Balasan rivers to the high forests of the Singalila ridge there could formerly be found elephant, tiger, sambhur, large herds of spotted deer and pig, leopard, bear, goral and serow. Nowadays the elephant is only a casual visitor and the few tigers that still roam the foothills are forced to supplement their natural diet of sambhur, spotted deer and pig with cattle from the jungle villages. The leopard still flourishes in the plains jungles and the lower hills and sloth bear too may be quite often met ; but in the mountains, the serow and goral are rapidly disappearing as their rocky fastnesses are invaded by man. The Himalayan black bear, once such a menace to the cultivator, is sharing the same fate. The barking deer alone appears to be holding its own in spite of everything."

Of the rarer animals special mention must be made of the Clouded Leopard, with its beautiful tortoise-shell markings, very seldom seen but commoner than is usually supposed ; and of the Bay or Golden Cat about which very little is known. . . The rarest and undoubtedly the most curious animal is the Pangolin (*Manis pentadactylus*) which is about 2½ feet long and has thick scales like an armadillo. It is a nocturnal animal, lives in deep

and secluded burrows and is very seldom seen. It is found both in the hills and the plains.

The climate of Dārjiling district is specially noteworthy because of its position in relation to the Tibetan land mass, the wide differences in altitudes, the powerful effect of the monsoons against the Himalayan barrier and the peculiar configuration of the neighbouring mountains which deflect winds and affect local temperature and rainfall. There are four observatories in the district at Dārjiling, Baghdogra, Kalimpong and Kurseong. Besides these, the tea estates, the military cantonments and the Forest and Agriculture Departments record climatic data on their own.

CLIMATE

Location of
observatories

Spring and autumn are the seasons most favoured by visitors to the district. The monsoon is a period of bothersome mist and almost continuous rain. The winter, after December, is usually too cold and unpleasant. The local climate depends largely on the elevation which varies from 1,000 feet (300 metres) in the Terai to 12,000 feet (3,600 metres) in the northern part of the district. In the Terai and the lower valleys the climate is similar to that of the adjoining districts in the plains of Bengal and Bihar while that at the higher elevations is cool and bracing. The summer is from March to May. Thereafter, the south-west monsoon arrives and lasts till about the beginning of October. October and the first half of November constitute the post-monsoon season while the period from mid-November to the end of February is the cold season.

Climatic divisions,
seasons and their
duration

Records of rainfall are available for 6 stations in the district for periods ranging from 30 to 91 years, the details of which have been given in a table at the end of this chapter. On account of the hilly nature of the terrain there are sharp variations in rainfall even between nearby stations. It is, however, generally heavier in the southern Terai and the ridges and slopes near the plains. Kurseong, on the southern slopes of the lower Himalayas, for instance, has an annual rainfall of 4,052.3 mm. (159.55") while Kalimpong, near the northern border of the district, gets only 2,254.0 mm. (88.74"). The precipitation during the south-west monsoon constitutes about 80 per cent of the annual rainfall, July being the wettest month. Thunderstorms accompanied by rain occur in summer and in October. The variation in the total rainfall from year to year is not much. Consecutive years with recorded rainfalls of less than 80 per cent of the normal are rare and occurred only once between 1901 and 1950. On an average there are about 120 rainy days (i.e. days with rainfall of 2.5 mm. 10 cent.s or more) in a year. This number varies from 105 at

Rainfall

Kalimpong to 137 at Pedong. The heaviest rainfall in 24 hours recorded at any station in the district was 546.1 mm. (21.50") at Mangpu on 12th June 1950.

Temperature

While temperature and other meteorological data are available from the Dārjiling, Kurseong and Kalimpong observatories for long periods, those from Baghdogra cover only a few years as the observatory was set up there much later. In summer, from March to May, the heat in the plains and low valleys is as oppressive as in other sub-Himalayan districts of West Bengal, the mean daily maximum temperature (33.5°C or 92.3°F) touching the highest level in May. The night temperatures are, however, higher during the south-west monsoon season than in summer. [In the hilly portions of the district both day and night temperatures are higher during the rains than in summer. After the withdrawal of the south-west monsoon, both day and night temperatures begin to fall throughout the district, the decrease being more rapid from November. January is the coldest month of the year when, in the plains, the mean daily maximum temperature is 24.2°C (75.6°F) and the minimum 8.6°C (47.5°F), the corresponding figures for Dārjiling town being 8.6°C (47.5°F) and 1.9°C (35.4°F). Frosts are fairly common throughout the cold season in the hilly parts of the district. In association with the passage of western disturbances, cold waves occasionally visit the district between November and early March when the minimum temperature may fall below 0°C in places like Dārjiling and Kalimpong. The highest ever temperature witnessed in Dārjiling town was 26.7°C (80.1°F) on 23rd August 1957 when the mercury registered the record temperature of 31.1°C (88.0°F) at Kalimpong. The lowest ever temperatures recorded in the district were -5.0°C (23.0°F) on 11th February 1905 at Dārjiling and -0.6°C (30.9°F) on 27th December 1922 at Kalimpong.

Humidity

Over the northern tracts of the district the atmosphere is highly humid throughout the year, the relative humidities ranging between 90 and 95 per cent during the rainy season. In the low-lying tracts to the south relative humidities are slightly less, the driest months there being March and April when they vary between 45 and 60 per cent.

Cloudiness

During the monsoon season the sky is heavily overcast while for the rest of the year it is lightly or moderately clouded. Cloudiness increases in May. In winter mornings lifted fog frequently covers the hilly regions. Fog occurs occasionally in the Terai from December to March. In the hills its occurrence is local. In Dārjiling and Kalimpong fog or mist is very common in July and August and is fairly frequent in June and September: it is

rarest in December. Normal cloud occurrence at Kalimpong, Darjiling and Gangtok is as follows :

CLOUD AT 8 A.M. LOCAL TIME (WHOLE SKY CLOUDY—10.0)

Month	Kalimpong (3,933 feet)	Darjiling (7,376 feet)	Gangtok (5,667 feet)
January	2.6	4.1	3.1
February	2.7	4.3	3.2
March	1.8	3.6	2.2
April	3.3	4.9	2.7
May	4.2	6.8	4.0
June	7.1	8.6	6.1
July	7.5	9.0	6.7
August	7.5	9.0	5.9
September	6.5	8.1	5.5
October	3.3	5.3	3.4
November	1.9	3.3	2.4
December	2.6	3.1	2.0
Year	4.2	5.8	3.9

Dash gave a good account of air movements over the district in the old Darjiling District Gazetteer of 1947 which is briefly quoted below :

Air movement

“During the period November to May upper winds over the Himalayan region are predominantly westerly. At extreme heights these winds are...strong and often rise to gale or hurricane force. At these heights some falling off in speed usually occurs in the months of March, April and May and with the setting in of the monsoon (in June) there comes a conspicuous reduction in wind speed persisting until the approach of winter. At altitudes of 8,000 to 20,000 feet in the Eastern Himalayas, wind directions are steady from November to the first half of February and fairly steady from the second half of February to May. During the monsoon, wind direction is most unsteady and the monsoon current occasionally rises to great heights (even above the highest Himalayan peaks). On such occasions the air current over the Eastern Himalaya becomes southerly or south-easterly. ..In October, with the withdrawal of the monsoon, the westerly movement begins and becomes progressively steady as winter conditions set in.

“At the height of Darjeeling and in the Terai, calm conditions are frequent. Calm does not occur so often at Kalimpong. Average wind force at Darjeeling does not exceed 6 miles per hour; the mean velocity is higher at Kalimpong and lower in the Terai. ..Surface winds in the Darjeeling District have usually an easterly component. From November throughout

the winter the prevailing direction in Darjeeling town is east-northeast. In the spring up to June there is a tendency for a west or south-west component to enter and in the monsoon (June to September) the prevailing direction is east-southeast.

“Wind directions are probably caused by a large easterly Himalayan air mass which descends as an easterly or north-easterly current usually down the Brahmaputra valley. This air current is responsible for the majority of storms in the Bay of Bengal and for the deflection of monsoon depressions towards the west. Except in the winter months this current is the coolest of the various air masses in the region of India. In the pre-monsoon months, a southerly air from the Bay of Bengal brings moisture inland in varying quantities. The impact of this current on the cool north-easterly current gives rise to local storms in the plains of Bengal and is, with a diurnal convection of air between the hills and the plains at the foothills, the main cause of the frequent local storms which take place in the District during March, April and May. By the middle of June or the beginning of July, the Bay of Bengal air current has usually merged into the Bay branch of the monsoon”.

The southern part of the Terai is occasionally affected for a few days by a hot dry wind which, during hot weather months blows from the west over Bihar. This wind, more common in the South Terai, rarely reaches as far to the east as Jalpaiguri. It has a parching effect on vegetation and in particular on tea causing the leaves to fall off the bushes. In the Tista gorge and other river valleys, there is often a draught of air up and down which changes direction diurnally.

Climatological
data

In the first Appendix to this chapter four tables are annexed which give all climatological information appertaining to the district as furnished by the Poona Meteorological Observatory. They are based on data correct up to 1956.

APPENDIX A
TABLE I

DARJILING DISTRICT : NORMALS AND EXTREMES OF RAINFALL—Contd.

Station	No. of years of data	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual & year** (1905)	Highest annual rainfall as % of normal	Lowest annual rainfall as % of normal	Heaviest rain- fall in 24 Hours*	
																	Amount & year** (1931)	Date (mm) (1899)
Darjiling	50 a	10.9	31.7	54.1	113.0	231.4	597.1	792.2	643.4	445.5	142.2	24.6	6.3	3092.4	124	71	492.8	25 Sep.
	b	1.0	2.7	4.3	8.2	15.2	21.1	25.6	23.8	17.0	5.3	1.2	0.7	126.1				1899
K Kalimpong	29 a	9.9	23.6	29.2	81.3	144.8	409.2	612.9	504.4	312.2	104.4	15.5	6.6	2254.0	138	79	302.0	12 Jan.
	b	0.9	2.4	3.2	6.8	11.1	17.1	22.5	21.5	13.8	4.5	1.1	0.6	105.5	(1950)	(1930)		1950
Siliguri	50 a	8.6	17.3	31.7	103.9	304.5	738.6	850.4	756.2	600.7	182.6	21.3	4.3	3620.1	140	67	287.0	4 Aug.
	b	0.9	1.6	2.3	6.0	13.7	20.3	22.4	21.6	17.2	6.2	1.1	0.4	113.7	(1926)	(1914)		1906
Maangpu	50 a	13.5	32.5	57.7	136.9	245.6	661.9	820.7	662.7	431.0	123.2	21.8	6.1	3213.6	135	73	546.1	12 Jun.
	b	1.1	2.9	4.3	8.8	15.3	20.2	23.9	22.5	15.8	4.8	0.9	0.6	121.1	(1902)	(1901)		1950

APPENDIX A
TABLE I

DARJILING DISTRICT : NORMALS AND EXTREMES OF RAINFALL—*Concl'd.*

Station	No. of years data	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual	Highest annual rainfall as % of normal	Lowest annual rainfall as % of normal	Heaviest rain- fall in 24- Hours*	Amount Date & year** (mm)
Kurseong	50 a	14.2	28.2	43.7	107.4	273.8	825.7	1040.6	903.7	633.0	158.7	17.0	6.3	4052.3	135 (1950)	74 (1901)	501.7	11 Jun. 1950
	b	1.4	2.5	3.1	7.0	14.3	22.4	27.0	25.9	19.9	6.2	1.1	0.6	131.4				
Pedong	44 a	14.5	31.5	50.3	121.2	242.6	466.6	638.1	558.8	357.1	111.8	22.1	8.9	2623.5	126 (1925)	78 (1907)	217.2	20 Oct. 1929
	b	1.5	3.3	4.0	9.3	16.1	22.1	26.5	26.4	19.5	5.8	1.6	1.0	137.1				

(a) Normal rainfall in mm.

(b) Average number of rainy days (days with rain of 2.5 mm. or more).

*Based on all available data up to 1956.

**Years given in brackets.

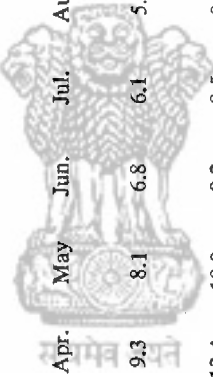
TABLE II
DARJILING DISTRICT : NORMALS OF TEMPERATURE AND
RELATIVE HUMIDITY

Month	Mean Daily Maximum Tempe- rature (Centi- grade)	Mean Daily Mini- mum Tempe- rature (Centi- grade)	Highest Maximum ever recorded		Lowest Minimum ever recorded		Relative Humidity	
			(Centi- grade)	Date	(Centi- grade)	Date	0830	1730*
Darjiling Town								
Jan.	8.6	1.9	18.9	20 Jan. 1952	—3.9	25 Jan. 1953	76	89
Feb.	9.0	2.6	17.2	28 Feb. 1955	—5.0	11 Feb. 1905	76	88
Mar.	13.2	6.2	23.3	29 Mar. 1935	—0.6	6 Mar. 1908	70	82
Apr.	16.2	9.3	26.7	13 Apr. 1910	1.1	26 Apr. 1933	74	87
May	17.3	11.4	23.9	18 May 1916	5.6	7 May 1939	86	92
Jun.	18.4	13.7	26.7	20 Jun. 1902	8.3	1 Jan. 1938	93	96
Jul.	18.8	14.4	25.0	30 Jul. 1919	3.9	26 Jul. 1944	94	97
Aug.	18.8	14.3	26.7	21 Aug. 1957	8.3	6 Aug. 1947	92	99
Sep.	18.2	13.4	26.7	4 Sep. 1900	10.0	30 Sep. 1940	90	97
Oct.	16.7	10.2	23.3	3 Oct. 1944	4.4	31 Oct. 1913	81	89
Nov.	13.3	6.2	22.2	2 Nov. 1943	—0.6	30 Nov. 1951	70	88
Dec.	10.4	2.7	20.0	14 Dec. 1947	—1.7	31 Dec. 1950	66	86
Annual	14.9	8.9					81	91
Kalimpong								
Jan.	15.4	7.9	26.1	19 Jan. 1956	0.6	8 Jan. 1945	77	78
Feb.	16.4	8.9	26.1	25 Feb. 1956	3.3	14 Feb. 1945	75	76
Mar.	20.7	12.3	27.8	29 Mar. 1923	4.4	8 Mar. 1957	66	67
Apr.	22.9	15.0	30.6	23 Apr. 1939	8.3	1 Apr. 1944	69	72
May	23.7	17.1	29.5	31 May 1958	10.0	30 May 1955	81	84
Jun.	24.2	19.2	30.6	8 Jun. 1931	14.4	25 Jun. 1956	89	92
Jul.	24.2	19.6	29.9	22 Jul. 1937	15.6	25 Jul. 1958	91	94
Aug.	24.2	19.4	31.1	23 Aug. 1957	10.0	10 Aug. 1955	91	93
Sep.	23.8	18.8	28.9	27 Sep. 1957	13.9	12 Sep. 1924	89	93
Oct.	22.5	15.7	28.3	3 Oct. 1944	8.9	15 Oct. 1944	80	85
Nov.	19.7	11.6	26.1	3 Nov. 1956	3.9	27 Nov. 1944	75	79
Dec.	16.9	8.7	26.7	9 Dec. 1953	—0.6	27 Dec. 1922	74	78
Annual	21.2	14.5					80	83

* Hours I. S. T.

TABLE III

MEAN WIND SPEED IN KM./HR.



Station	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Darjiling	4.5	6.8	8.4	9.3	8.1	6.8	6.1	5.9	5.5	4.5	3.5	3.4	6.1
Kalimpong	10.5	10.9	12.1	12.4	10.8	9.2	8.5	8.5	8.7	10.1	10.5	10.8	10.3

TABLE IV
DARJILING DISTRICT : SPECIAL WEATHER PHENOMENA

Mean No. of days with	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Darjiling Town													
Thunder	0.4	0.1	3.8	6.9	6.9	2.6	1.6	1.6	1.5	0.3	0.1	0.1	25.9
Hail	0.3	0.4	1.0	1.1	1.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	4.3
Dust Storm	0.0	0.0	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
Squall	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.3
Fog	5.2	5.9	4.8	1.9	10.9	19.1	21.1	21.9	15.8	3.0	2.8	2.4	114.8
Kalimpong													
Thunder	0.0	1.2	2.4	6.6	8.9	3.0	3.1	2.8	3.5	0.1	0.0	0.2	31.8
Hail	0.0	0.3	0.3	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1
Dust Storm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Squall	0.0	0.0	0.0	0.1	0.6	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.9
Fog	1.2	1.1	1.2	1.9	6.8	11.1	14.0	13.7	9.2	3.0	1.2	0.7	65.1

CHAPTER II

HISTORY & PEOPLE

HISTORY

There has been no archaeological excavation in Dārjiling district. E.H.C. Walsh¹ collected some celts from Kālimpong subdivision of the district. Walsh did not call these finds neolithic implements. Dani² on typological considerations classes these as neoliths. All the finds were surface finds or obtained from village homes. They cannot thus be related stratigraphically to any cultural period. Similar celts were discovered by the West Bengal Directorate of Archaeology between 1962 and 1967. Some megaliths were found at Badamtam near the confluence of the Rangit and the Rongdong. These were not burials. These finds are, however, deceptive. The celt-like objects are often faked by the pedlars for passing them on the credulous tourists as having magical potency. The megalith-like structures are even now raised by the Limbus for burial and by the Lepchas for ritualistic purposes. They are called *medongs*. These surface finds therefore do not clearly add to our knowledge of pre-history of the area.

The present district of Dārjiling is a creation of the nineteenth century and is a result of almost accidental involvement of the British Indian Government in the affairs of neighbouring Himalayan States. In 1817, the East India Company struggled with a Himalayan State on behalf of the Raja of Sikkim and restored to him the whole of the country between the Mechi and the Tista rivers. This was the result of the treaty of Titaliya of 1817.

Under the above treaty the Raja was bound to refer to the arbitration of the British Government all disputes between his subjects and those of neighbouring States. Ten years after it was signed, disputes on the Sikkim-Nepal frontiers arose and were referred to the Governor-General. Two Officers, Captain Lloyd and Mr. Grant, were deputed in 1828 to deal with the disputes and they penetrated into the hills as far north as Rimbupong (in the Kulhait valley in Sikkim). Lloyd spent six days in February 1829 in "the old Goorkha station of Dārjeeling" and was attracted by its advantages as a site for a sanatorium. Dārjiling was at that time a large village and the residence of one of the principal Kazis.

Mr. Grant reported accordingly to the Governor-General Lord William Bentinck the numerous advantages promised by a

¹ E.H.C. Walsh -- 'A note on Stone Implements found in Darjeeling District' *Journal of the Asiatic Society of Bengal*, Vol. LXXXIII, Part III, No. 1 Calcutta 1904, pp. 20-21.

² A.H. Dani *Pre-history and Proto-history of Eastern India*, Calcutta 1960, pp. 95, 104.

sanatorium at Dārjiling as also recommended its occupation for military purposes. The Governor-General then deputed Captain Herbert, the Deputy Surveyor-General, to examine the country with Mr. Grant, and, in due course, the Court of Directors approved the project. General Lloyd was directed to open negotiations with the Raja on the first convenient occasion. He succeeded in obtaining the execution of a deed of grant by the Raja of Sikkim on 1st February 1835. The deed ran as follows :

“The Governor General, having expressed his desire for the possession of the hill of Darjeeling on account of its cool climate, for the purpose of enabling the servants of his Government, suffering from sickness, to avail themselves of its advantages, I, the Sikkimputtee Rajah, out of friendship for the said Governor General, hereby present Darjeeling to the East India Company, that is, all the lands south of the Great Rangit river, east of the Balasun, Kahail and Little Rangit rivers and west of Rungno and Mahanadi rivers.”

This was an unconditional cession of what was then an uninhabited mountain. After the cession, General Lloyd and Dr. Chapman were sent in 1836 to explore and investigate the climate and the capabilities of the place. They spent the winter of 1836 and part of 1837 doing this, and when it was finally decided to develop the site as a sanatorium, General Lloyd was appointed Local Agent to deal with applications for land, which began to pour in from residents of Calcutta. Progress was rapid: whereas in 1836 General Lloyd and Dr. Chapman had found only a few huts erected by the Raja of Sikkim, by 1840, a road was made from Pankhabari : there was a staging bungalow there and at Mahaldiram ; a hotel was started at Kurseong and another at Dārjiling ; and at Dārjiling 30 private houses were erected and nearly as many ‘locations’ or building sites had been taken up at Lebong. The rest of the ceded areas were, however, under forests and practically uninhabited.

In 1839, Dr. Campbell of the Indian Medical Service, British Resident in Nepal, was transferred to Dārjiling as Superintendent. Dr. Campbell found Dārjiling an inaccessible tract of forest with scanty population. He converted it into an excellent sanatorium and improved the communication system. Several European houses with a bazar, jail and buildings for the accommodation of the sick were built around 1849. A simple system of administration of justice, well adapted to the character of the local tribes, was also introduced. There was experimental cultivation of tea and coffee and introduction of various European fruits.

Thereafter, there was an internal rebellion led by Lamas and other leading men of Sikkim. A punitive expedition was sent by the British in February 1850. This expedition remained on the north bank of the Great Rangit river for a few weeks. This was

followed by annexation of the Terai (foothills of the Himalayas) and the portion of the Sikkim Hills bounded by the Rammam and the Great Rangit rivers on the north, by the Tista on the east and by the Nepal frontier on the west. This area of 640 sq. miles (1657.60 sq.km.) was attached to Darjiling.

The Terai and the hill territory annexed from Sikkim were managed by the Superintendent, who from 8th May 1850 was called the Deputy Commissioner. The change was welcomed by the inhabitants who had to pay only small fixed sums into the treasury in Darjiling, instead of having to meet uncertain and fluctuating demands in kind and calls for personal service made by the Raja and Dewan.

After the annexation, the British territory in Darjiling was continuous with the British districts of Purnea and Rangpur in the plains, and the Sikkim Raja was cut off from access to the plains except through British territory. Subsequently, there were some Sikkimese raids on British Territory, as a result of which Dr. Campbell with a small force crossed the Rammam in November 1860 and advanced as far as Rinchinpong. Later, other British officers joined with fresh force and entered Tumlong, the capital of Sikkim in March 1861. The Raja of Sikkim abdicated in favour of his son, with whom, on 28th March, a treaty was made, which was of particular importance to Darjiling because it finally put an end to frontier troubles with Sikkim and secured full freedom for commerce across the Sikkim border. By a treaty in November 1865, what is now Kalimpong subdivision was ceded to the British. The Kalimpong area was first notified as subdivision under the Deputy Commissioner of Western Duars district. But in 1866, it was transferred to Darjiling. With this change the Darjiling district reached its present shape. This was an epoch in the history of the district. Peace was established and development of the area systematically started.

After Kalimpong had been brought under British Administration the district was divided into two subdivisions : the headquarters subdivision with an area of 960 sq. miles (2,486.40 sq. km.) including all the hills on both sides of the Tista and the Terai subdivision with an area of 274 sq. miles (709.66 sq. km.) which included the whole of the country at the foot of the hills. The headquarters of the Terai subdivision was at Hanskhawa near Phansidewa from 1864 to 1880. Thereafter it was transferred to Siliguri. Then the metre-gauge railway of the North Bengal State Railway was extended to Siliguri, which, at that time in the Jalpaiguri district, was transferred to Darjiling district with a small surrounding area and made the headquarters of the Terai subdivision.

In the meantime Kurseong had begun to develop and in 1891 it was made the headquarters of a new subdivision, which included

both the Terai and the lower hills west of the Tista. Later in 1907, Siliguri was made a subdivision, thus re-establishing the Terai subdivision which had in 1891 been absorbed into the Kurseong subdivision.

Kalimpong in the mean time had been in the Sadar subdivision with a Manager of the Khas Mahals working at Kalimpong under the Deputy Commissioner, —police work being controlled by an Inspector. In 1917, the Kalimpong subdivision was created as a preliminary to working out development schemes in Kalimpong areas.

The district was included in the Raishahi Division until October 1905 when, as a result of the Partition of Bengal, it was transferred to the Bhagalpur Division. With the rearrangement of the provinces it was re-transferred to the Rajshahi Division in March 1912.¹

The Partition of Bengal in August 1947 left the boundaries of the district intact and in the share of West Bengal. The district was placed thereafter in the Presidency Division.

The district was formerly a Non-Regulation district, that is to say, Acts and Regulations did not come into force unless they were specially extended to it. Darjiling had no representative in the Legislative Council constituted under the Government of India Act, 1919. It was excluded and declared a backward tract. The administration of the district was then vested in the Governor in Council and expenditure of the internal administration of the district was not subject to the vote of the Legislature. The effect of exclusion was that any Act passed by the Legislature which extended to the whole of Bengal automatically applied to the Darjiling district, unless the Governor in Council directed that the Act in question should not apply or that it should apply subject to such modifications as the Governor thought proper.

Under the Government of India Act, 1935, the district was made a partially excluded area. Under section 92, no Act of the Provincial or the Central Legislature would apply to it unless the Governor by public notification so directed and the Governor in giving such a direction with respect to any Act might direct that the Act would, in its application to this district, or to any specified part of it, have effect subject to such exceptions or modifications as he thought fit.

The freedom movement in the district was much tempered by its moderate political ideology. One outstanding incident connected with the "terrorist movement" was the attempt on the

¹ The 19th Century history has been summarized from A Mitra—*District Handbooks, Darjeeling*, 1954, pp. ii-iv.

life of Sir John Anderson, the Governor of Bengal, at the Leborg Race Course on May 8, 1934 by Bengali "terrorists". The district, with the rest of India, attained independence as part of India in August 1947.

According to the Constitution of India, the district no longer enjoys special privileges, and all statutes, except the Bengal Tenancy Act in certain of its particulars, apply to it. The Deputy Commissioner of Darjiling is now also a District Magistrate and has to be notified as such in the Official Gazette when a new Deputy Commissioner is appointed.

POPULATION

In the 1971 Census, 7,81,777 persons were enumerated as living in the district, which covered an area of 3,004 sq.km. (1,160 sq. miles) according to the Surveyor-General of India, and 3,075.0 sq. km. (1,256.6 sq. miles), according to the computed figures given by the Director of Census Operations, West Bengal. The latter figure has been accepted here for computing the areas of the subdivisions and measuring the density of population of the district and parts thereof. The male and female population of the district numbered 4,15,442 and 3,66,335 respectively in 1971, giving a ratio of 88.17 females per 100 males, or roughly, 53 males to 47 females for every hundred of its population. The district's density of population was about 254 persons per square kilometre.

It may be mentioned here that there is some fluctuation in the overall population due to seasonal immigration and emigration customary to the district. During the so-called "tourist seasons" from April to June and September to November, thousands from the warm plains of India visit the cool hill-stations and during the winter (from December to February) the many residential educational institutions in the hills close, —their students and staff leaving for the plains. The last Census taken in March 1971 does not, however, appear to have been materially influenced by these temporary population variations.

Population of the subdivisions

Of the four subdivisions of the district, Siliguri, comprising the plains and the Terai portion of the district and covering 837.4 sq. km. (323.3 sq. miles), had the largest population in 1971, namely, 3,01,799 of whom 1,67,090 were males and 1,34,709 females. In other words, this subdivision covering only 26.5 per cent of the total area of the district accounted for 38.6 per cent of the total population, which was due to the fertility of its soil as also the widespread industrial and commercial activities in and around Siliguri.

Dārjiling Sadar subdivision covers an area of 935.5 sq.km. (361.2 sq. miles) and had a total population of 2,45,207 persons in 1971, of whom 1,25,441 were males and 1,19,766, females. It occupies roughly 28.7 per cent of the district area and contains

31.4 per cent of its population. It is the most populous of the three hill subdivisions of the district because of its good communication network, accessibility from the plains and availability of agricultural land. Dārjiling town, as the headquarters of the district and the most attractive tourist resort of the State, has excellent job opportunities. Besides, people of Nepalese extraction have settled more in this subdivision than elsewhere due to its proximity to Nepal.

Territorially, Kalimpong is the largest subdivision, comprising 1,056.5 sq.km. (407.9 sq. miles). But with a population of only 1,34,538 (of whom 71,539 were males and 62,999 females) in 1971, it came third after Siliguri and Dārjiling subdivisions. This subdivision covers 32.4 per cent of the district area but accounts for only 17.3 per cent of its population. The reasons for its low density are bad communications, inadequate forest clearance, frequent heavy floods in the spill areas of the Lish, the Gish and the Chel streams and the humid climate.

Both in area and in population Kurseong is the smallest subdivision with an area of 425.3 sq.km. (164.2 sq. miles) and containing 1,00,233 persons, of whom 51,372 are males and 48,861 females. Thus the subdivision covers 13 per cent of the district area and accounts for 12.8 per cent of its population. Kurseong subdivision has the same advantages of location and communication as the Sadar subdivision. The land utilization pattern is also more or less similar. But the fact of its not being the district town coupled with its relatively wetter climate accounts for its lower population density than that of the Sadar subdivision.

For administrative purposes the district is divided into 13 thanas or police station areas. Dārjiling Sadar subdivision consists of the thanas of Dārjiling Pulbazar, Sukhiapukhri, Jore-Bungalow and Rangli Rangliot; Kalimpong subdivision of Kalimpong and Gorubathan; Kurseong subdivision of Kurseong and Mirik; and Siliguri subdivision of Siliguri, Phansidewa, Kharibari and Nakshalbari.

Population of the
thanas

In area Kalimpong is the largest police station in the district with 1,02,236 inhabitants within its 609.7 sq. km. (235.4 sq. miles). In point of population alone Siliguri comes at the top with 1,34,392 persons living within its 174.8 sq. km. (67.5 sq. miles). In size alone, Gorubathan is the second largest thana being 446.8 sq. km. (172.5 sq. miles) in extent with 32,302 persons living within its bounds. Mirik, on the other hand, is the smallest both in size and population, namely, 97.4 sq. km. (37.6 sq. miles) and 28,519 persons respectively. In point of population, Sukhiapukhri is just above Mirik with 29,137 persons inhabiting 239.8 sq. km. (92.6 sq. miles) of that thana area. The Dārjiling police station with its small dimension of 104.6 sq. km. (40.4 sq.

miles) contains none the less a population as large as 82,002, which is bigger than that of some of the larger thanas of the district.

The following table gives the subdivisionwise and thanawise distribution and density of population in the district as they were in 1971.

SUBDIVISIONWISE AND THANAWISE DISTRIBUTION AND DENSITY OF POPULATION IN DARJILING DISTRICT : 1971

District/ Subdivision/ Police Station	Area in sq. km.	Population in 1971			Density per sq. km.
		Persons	Males	Females	
Darjiling District	3,075.0	7,81,777	4,15,442	3,66,335	254
Sadar (Darjiling subdivision)	935.5	2,45,207	1,25,441	1,19,766	262
Pulbazar	137.3	41,147	21,247	19,900	300
Darjiling	104.6	82,002	42,834	39,168	784
Sukhiapukhri	239.8	29,137	14,739	14,398	122
Jore-Bungalow	146.1	41,096	20,442	20,654	281
Rangli Rangliot	307.7	51,825	26,179	25,646	168
Kalimpong subdivision	1,056.5	1,34,538	71,539	62,999	127
Kalimpong	609.7	1,02,236	54,130	48,106	168
Gorubathan	446.8	32,302	17,409	14,893	72
Kurseong subdivision	425.3	1,00,233	51,372	48,861	219
Mirik	97.4	28,519	14,429	14,090	293
Kurseong	327.9	71,714	36,943	34,771	219
Siliguri subdivision	837.4	3,01,799	1,67,090	1,34,709	360
Phansidewa	312.4	71,885	38,252	33,633	230
Siliguri	174.8	1,34,392	77,443	56,949	760
Kharibari	143.5	44,723	23,584	21,139	312
Nakshalbari	206.7	50,799	27,811	22,988	246

**Growth of
population**

The Darjiling district offers the most remarkable example of growth of population stemming mainly from immigration from outside. At the time of the cession of the greater part of Darjiling Sadar subdivision, comprising 357.4 sq. km. (138. sq. miles), by the Raja of Sikkim to the British in A.D. 1835, the tract

was wholly covered by forests and it has been said that there were not even twenty resident families or households in that area.¹

The period of Dr. Arthur D. Campbell's Superintendentship from A.D. 1839 saw the growth of settlements and of population in the district. On becoming the Superintendent in Darjiling Campbell took vigorous steps to attract settlers to the region and his measures proved so successful that by A.D. 1849, that is, seven years before any tea garden was established in the district, he was able to report that the number of inhabitants had risen to 10,000.

The early settlers were mostly agriculturists. Campbell gave them every encouragement to reclaim forest lands and settle down there. Urbanization through the establishment of a sanatorium at the nucleus town also led to growth of employment opportunities and hence to population increase. By 1852, there were 70 European houses in Darjiling town besides a bazar and a jail. A Hill Corps was stationed there to maintain law and order, and the revenue raised from the settlement amounted to Rs. 50,000 in 1852.

Factors of growth of population

But the most potent factor contributing to the growth of population had been the tea industry, for the introduction of which into the district the credit goes to Arthur D. Campbell among others. Soon after his appointment as Superintendent of Darjiling, Campbell began trial experiments in growing tea and also induced other European residents to do so. This led to the establishment of the first tea plantations on a commercial basis in 1856 at Aloobari and at Lebong. These enterprises created a big demand for plantation labour in the district. "By the end of 1866, i.e., only ten years after the establishment of the industry on a commercial basis, there were no less than 39 gardens with 10,000 acres under cultivation" which, by 1874, rose to 113 spread over 18,888 acres.² From around 1856, immigration of plantation labour caused by the opening of tea gardens has been a major factor in the population increase of the district. In 1869, when a rough census of the then district was taken, it was found to contain over 22,000 inhabitants. The great part played by the tea industry in this behalf is evident from the fact that according to the Census of 1901 tea-garden labourers and their dependants accounted for more than two-thirds of the total population of the district, despite the fact that tea industry was passing through

The tea plantation industry

¹ L.S.S.O' Malley—*Bengal District Gazetteers : Darjeeling*, Calcutta, 1907, p. 35.

² L. S. S. O' Malley—*op. cit.*, p. 74.

Source : A. Mitra—*Census of India 1951*, *District Handbooks: Darjeeling*, Calcutta, 1954, p. xxi ; Government of Bengal—*Annual Administration Report of Bengal* (various years) ; Tea Board—*India Tea Statistics* (various years).

a minor recession at that time. In 1931, the same category of labourers formed about 47.25 per cent of the total working population of the district. In 1971, the workers employed in plantations, forestry, mining, quarrying, hunting and orchards, etc., constituted about 27 per cent of the total working people in the district and an overwhelming majority of them were employed in the tea industry. In the three hill subdivisions in 1971 they formed 31.52 per cent of the total working population. The following table gives an idea of the impact of the tea industry on the population growth of the district.

TEA INDUSTRY'S IMPACT ON POPULATION GROWTH
DARJILING DISTRICT : 1861-1966

Year	No. of tea estates	Total area in hectares under tea	Approximate yield in kilograms	Average yield in kgs. per hectare	Total No. of all kinds of tea workers	Total of working force	Percentage of col. 6 to col. 7
1	2	3	4	5	6	7	8
1861	22	1,317	19,323	15	2,534	—	—
1871	56	—	—	—	8,000	94,712 (in 1872)	8.45
1881	155	11,489	23,40,719	204	—	1,55,179	—
1891	177	18,462	49,48,997	268	—	1,55,207	—
1901	170	20,948	61,39,720	293	40,451	1,55,235	26.06
1911	156	20,853	64,64,079	310	39,561	1,51,604	26.09
1921	168	23,897	63,87,117	267	48,710	1,74,167	27.97
1931	169	24,777	92,97,204	375	63,665	1,29,070	43.33
1941	136	25,585	1,12,56,182	440	69,699	1,33,306	52.28
1951	138	25,345	1,32,82,995	524	69,590	1,37,541	50.60
1961	145	27,709	1,80,50,271	651	59,844	2,66,105	22.49
1966	144	28,121	1,73,98,000	619			

N.B.—The figures are approximate.

Role of agriculture
in growth of population

Any emphasis on the tea industry as the most potent factor for growth of population in the district should not minimize the role played by general agriculture, which also encouraged large-scale immigration to the newly reclaimed lands, as would be apparent from the following facts relating to Kalimpong subdivision.

In A. D. 1865 it had a population of only 3,530 persons.¹ The number increased to 12,683 in 1881 and to 41,511 in 1901. The larger part of this population was composed of incoming agriculturists. With the growth of settlements of plantation workers and agriculturists (who were getting cash remuneration and good crops including cardamom, a good cash crop), and of relatively well-off white-collar workers, the prospects of trade and commerce grew which, again, attracted more immigrants. The following table prepared from the data relating to agriculturists in the respective censuses, gives an account of generation variations of agricultural workers in the district and their percentage to the total working force of the district.

**PERCENTAGE OF AGRICULTURISTS TO TOTAL WORKERS
IN DARJILING DISTRICT : 1901-71**

Year	Total No. of all types of agricultural workers	Total No. of workers	Percentage of agriculturists to total working force
1901	56,029	1,55,207	36.10
1931	30,175	1,29,070	23.38
1961	1,07,510	2,66,105	40.40
1971	1,11,837	2,82,442	39.59

Since the inception of immigration into the district, people belonging to various castes and tribes, speaking over a dozen Indo-Aryan and Tibeto-Burman tongues and hailing from Nepal, have always been in a majority. This is revealed from the fact that when a census was taken in 1891 it was found that out of the district population of 2,23,314 persons, 88,000 were born in Nepal. Even this figure failed to reflect correctly the bulk of the population of Nepalese origin in the district as it excluded those whose parents or grandparents were born in Nepal. It would, therefore, be advisable to take into account the aggregate population of all the ethnic groups of Nepalese extraction and compare it with those for ethnic groups of Sikkimese, Bhutanese and Tibetan origin. Such data relating to the hill people may be profitably compared with population figures of major ethnic groups hailing from the Indian plains. In 1901 it was found that 61 per cent of the population was of Nepalese origin (which included people belonging to the following castes and tribes, irrespective of religion : Nepali Brahmans, Chhetris or Khasas, Newars, Thakuris, Sannyasis, Gurungs, Mangars,

Composition of
the population

1 L. S. S. O'Malley—*op. cit.*, p. 36.

Sunwars, Rais or Jimdars, Khambus, Yakhas, Gharlis, Murmis or Tamangs, Kamis, Sarkis, Damais and Limbus) ; 27 per cent were tribes and scheduled castes [as mentioned in the President of India's Scheduled Castes and Scheduled Tribes Lists (Modification) Order of 1976] from the Indian plains [which included, demographically, important groups like the Raibansis (including Koches), Oraons, Mundas, Santals, Meches, Malpaharias, etc.] ; Lepchas, the original inhabitants ; while the Bhutias (including the Sikkimese Tibetans, or the Sikkimese Khampas, the Nepalese-Tibetans or the Sherpas and the Bhutanese Bhutias or the Dukpa or Drukpa, Kagatey and Yolmo Bhuyas) formed a bare 3 per cent, and the Tibetans 1 per cent of the population. The remaining 4 per cent was made up of people belonging to "upper" Hindu castes, Muslims (mainly Sheikhs or converts from "lower" Hindu castes) and non-tribal Christians from the plains, and Europeans. As the majority of people belonging to tribes and scheduled castes from the Indian plains were settled in the plains and the *terai* areas of the district, the proportion of the people of Nepalese origin in the three hill subdivisions was much more than the district figures would warrant. In 1931 people of Nepalese extraction, including the Sherpas and Limbus, formed about 52 per cent, the tribes and scheduled castes from Indian plains approximately 21 per cent, the Lepchas and the Sikkimese Tibetans about 4 per cent, the Bhutanese about 1 per cent and the Tibetans about 1 per cent of the total population. The rest of the population was made up of people belonging to "upper" Hindu castes, Muslims, non-tribal Christians from the Indian plains, and Europeans.

The 1941 Census gave, for the last time, detailed ethnic group-wise population figures for the district. If we think of the ethnic groups, that is, the castes and tribes according to their geographical extractions, irrespective of whether they are Hindus, Buddhists, Christians, Muslims, or animists, we get a good picture of the ethnic composition of the people of Dārjiling district.

In 1941 it was found that the Nepali "high-caste" Hindus like the Brahmans, Chhetris and the Khasas ; those who were accorded a high-caste status like the Newars, and the Sannyasis ; the former tribes which were Hinduized and absorbed into the Nepalese caste society like the Gurungs, Mangars, Sunuwars and Bhujels ; the Kirata tribes which were in the process of being absorbed into Nepalese caste society like the Rais or Jimdars, Khambus, Yakhas and Gharlis ; the so-called low or serving castes and tribes on the way to being converted into castes like the Kamis, Sarkis, Damais and Tamangs and yet-to-be absorbed Tibeto-Nepalese tribes like the Sherpas and the Limbus together numbered 2,54,608 accounting for 67.6 per cent of the then population of the district. If we leave aside the Sherpas or the Nepalese Bhutias, who are really a Tibetan tribe from the Shola-Khambu region of Nepal, and the Limbus, an autochthonous tribe from the borders of

Sikkim and Nepal, the number of people of Nepalese origin was 2,29,876, accounting for 61.8 per cent of the population in 1941. Lepchas, the real autochthones of the Sikkim and Darjiling Himalayas numbered 12,470 and accounted for only 3.3 per cent, while Tibetans, both of Tibetan and Sikkimese origin, Sikkimese Khampas or Sikkimese Bhutias and Bhutanese Bhutias like the Dukpas, Kagateys and Yolmos, together numbered 7,953 and accounted for 2.1 per cent of the population. Among the Bengalis the scheduled caste Rajbansis (a composite caste formed by some former tribal groups like the Koches, Paliyas, Kantais and some smaller ex-tribes) were in the majority, numbering about 17,991, besides 5,655 persons belonging to other Bengali Hindu scheduled caste groups. Together they accounted for 6.2 per cent of the population. "High-caste" Bengali Hindus and Bengali Muslims (numbering 13,830 and 6,280 respectively) formed 5.3 per cent of the population. Taking Bengalis of all social denominations together, it is found that in 1941 they formed 11.5 per cent of the population. Members of tribes from the Indian plains together numbered 27,115 (Oraons 12,433, Mundas 4,993 and Santals 4,045 and others) and accounted for 7.2 per cent of the population in 1941. Other groups from the Indian plains (Hindi-speaking Hindus from Bihar and Uttar Pradesh 21,996, Urdu-speaking Muslims from Bihar and Uttar Pradesh 2,448 and Jains and Hindus from Rajasthan 2,416) together numbered 27,894 and accounted for 7.4 per cent of the population in the same year. The remaining 6.7 per cent of the population comprised Anglo-Indians, other Asians and Europeans.

In the censuses of 1951 and 1961, castes and tribes, other than those listed in the President's Schedule of backward and depressed castes and tribes, were not enumerated. *The Census 1951, District Census Handbook : Darjeeling* by Asok Mitra, however, gives detailed ethnic groupwise population data for the hill people (pp. xxxviii-xliii). The following table of the ethnic groupwise composition of the district population in 1951 has been derived from the figures given in the said publication.

APPROXIMATE ETHNIC GROUPWISE COMPOSITION OF THE POPULATION OF DARJILING DISTRICT : 1951

NEPALESE	2,85,009	TIBETAN	1,717
Brahmin	11,317	(mostly Khampas)	
Chhetri or Khasa	30,463		
Newar	14,827	BENGALI	64,446
Thakuri	804	(including Rajbansi)	
Sannyasi	1,085		
Bhujel	5,745	OTHER INDIANS	37,335
Gurung	17,864	Hindi-speakers	30,240
Mangar	19,413	Urdu-speakers	2,980

**APPROXIMATE ETHNIC GROUPWISE COMPOSITION OF THE
POPULATION OF DARJILING DISTRICT : 1951—contd.***

NEPALESE		OTHER INDIANS	
Sunuwar	4,803	Oriya-speakers	1,410
Rai or Jimdar & Khambu	63,745	Rajasthani	981
Yakha	N.A.	Punjabi	624
Yogi	474	Other Indians	1,100
Gharti	998	TRIBES FROM	26,778
Murmi or Tamang	49,890	INDIAN PLAINS & OTHER	
Kami	19,432	AREAS	
Sarki	2,932	Oraon	16,361
Damai	9,116	Munda	5,056
Thami	475	Santal	3,928
Limbu	19,838	Malpaharia	374
Sherpa (Nepali Bhutia)	8,998	Other tribals	1,059
Unspecified Nepali	1,780	SPEAKERS OF OTHER	
		ASIATIC LANGUAGES	767
LEPCHA	13,394	ENGLISH SPEAKERS	2,665
BHUTIA	9,061	(including Englishmen,	
Dukpa	1,157	Americans and Anglo-	
Kagatey	365	Indians)	
Yolmo	N.A.		
Unspecified Bhutia, including Sikkimese Bhutia	7,539	SPEAKERS OF OTHER	100
		EUROPEAN LANGUAGES	
संयोजित		GRAND TOTAL	4,45,241

It will be seen from the preceding table that among the Nepalese ethnic groups, the Rais are numerically the strongest. Tamangs, having a very low position in the Nepalese caste hierarchy, have always been the numerically second largest ethnic group in the district. A large majority of them in Darjiling are unskilled labourers in tea gardens, landless labourers or share-croppers and unskilled labourers in the urban areas. Chhetris or the Khasas are numerically the third largest ethnic group in the district. The traditional calling of the Chhetris is warfare. Limbus form the fourth largest Nepali ethnic group in Darjiling and are a backward people traditionally given to manual work. It may be broadly said that Nepalese castes having a background of manual work formed the bulk of Nepalese immigrants into Darjiling district, which had relatively more job opportunities

This approximate table leaves a gap of 3,969 persons, some of whom are accounted for by the groups for which figures are not available ('N.A.').

to offer to them. The only group enjoying a fairly viable economy at home which sent a sizable number of immigrants across the border were the Chhetris, who were also attracted by better job prospects. Since about the middle of the last century Dārjiling district became a great recruiting ground for the British Army, and the brave, loyal and hardworking Chhetris, Mangars, Gurungs and Thakuris (broadly called Gorkhas) were found very suitable for military careers. With the growth of the Nepalese population in the district, employed mostly in the primary sector, employment opportunities opened up in the tertiary sector by the close of the first decade of the 20th century leading to further immigration, especially of Newars, who, because of their erstwhile position of social power in Nepal, sought to regain leadership roles among the Nepalis in Dārjiling by taking up white-collar jobs and entering trade and commerce.

Regionally, the district may be divided into two distinct parts—the hills (comprising the three subdivisions of Sadar, Kalimpong and Kurseong) and the plains and the *terai* (comprising the Siliguri subdivision). Rajbansis along with other Bengali scheduled castes have always formed the bulk of the population of the Siliguri subdivision. But the colossal immigration of Bengali Hindus from the erstwhile East Pakistan and other places in course of last three decades or more, has reduced the numerical superiority of the Rajbansis in this area, which, although inhabited by a sizable number of Nepalese, is not liked by other hill people.

Turning our attention to the quantum of population growth from decade to decade as revealed by the census counts, we find that "the census of 1872 was considered defective. There was an immense concealment of females in 1881. Many of them fled on the census night over the frontier into Nepal. Labourers absconded from tea gardens from panic and other causes. It was believed that the census of 1891 for the first time took a satisfactory count. During 1891-1901 the hills were very healthy. On the other hand, the *terai* was notoriously malarious and mortality was very heavy. The Siliguri-Dārjiling railway line was opened in 1880-81."¹ And this last factor partially offset the climatic disadvantage even in the *terai*. It facilitated the growth of already existing Indo-Tibet, Indo-Sikkimese and Indo-Bhutanese trade thereby increasing employment potential in the tertiary sector of places situated on the railway line.

During 1901-11 there was a decline in the rate of growth of population. L. S. S. O'Malley in his Census Report of 1911 observed : "The explanation is that there is only a limited area in which there is room for an increase in population. Over one-third of the district is covered by reserved forests, while the tea gardens

Growth of
Population

: A. Mitra—*Census 1951, West Bengal District Handbook : Darjeeling*. Calcutta, 1954. PP. xxxi-ii.

extend over about one-seventh of its area. While they were being opened out and developed, labour poured in and a phenomenal growth of population resulted. Now, all the land suitable for cultivation, within the area reserved for it, has been taken up ; on the tea gardens, therefore, no considerable increase of population can be expected. As it is, tea occupies a third of the cropped area and the tea gardens employ a labour force of 53,000 or one-fifth of the total population of the district. As regards ordinary cultivation, only one-third of the district is cultivable, and it cannot, therefore, hope to support a teeming agricultural population. Even in Kalimpong, where nearly half of the land is reserved for native cultivation, it is recognized that it has reached the limit of safety in some parts, and in such localities it has been found necessary to prohibit further extension.”¹

Between 1872 and 1881 the population had increased by 63.8 per cent and during the next decade by 43.9 per cent. The growth rate registered a drop to 11.6 per cent during 1891-1901 and a further drop to 6.5 per cent during 1901-11, which remained almost the same in the following decade. During 1901-11 most of the population growth took place in Kalimpong subdivision, which recorded a 19.3 per cent rise in population, Sadar (Dārjiling) subdivision recorded 11.6 per cent and Siliguri 2.6 per cent, while Kurseong suffered a decrease of 8.8 per cent. It appears that during this decade the growth of population by immigration was caused more by bringing waste lands into cultivation than by expansion of industry, trade, commerce or transport, which should have enabled the Siliguri subdivision in particular to register a better rate of population growth. During 1911-21 when the district recorded a 6.5 per cent population increase, Kalimpong subdivision returned an even better growth, while Dārjiling (Sadar) showed a decline and Siliguri a 4.9 per cent increase. During 1921-31 the district recorded a 13 per cent growth in population, followed by a 17.7 per cent increase in 1931-41. From 1931 onwards Siliguri subdivision began to attract more and more immigrants, the bulk of whom were traders, white-collar employees and transport workers from the Indian plains, who came in the wake of urbanization of Siliguri, an entrepot market and the most important transport node in north-eastern India. During the 1941-51 decade, the district population increased by 18.3 per cent ; Siliguri subdivision registering a 29.4 per cent growth while the Siliguri police station containing the town of Siliguri recorded a growth of 61.2 per cent, which was largely due to the influx of refugees from the erstwhile East Pakistan, following the partition of the country in 1947 and the communal riots in 1950. During 1951-61 the district population increased by 17.8 per cent against an increase of 36.4 per cent for Siliguri police station and 101.5 per cent for Siliguri town.

¹ L. S. S. O'Malley—*Census of India, 1911. Bengal and Sikkim General Report Volume*, Calcutta, 1912.

The unprecedented growth of population in Siliguri town was mainly due to urbanization and expansion of the tertiary sector.¹

The following table gives a subdivisionwise and thanawise distribution of population in the district in 1901, 1931 and 1961 as also the percentage variations between generations.

SUBDIVISIONWISE AND THANAWISE DISTRIBUTION OF
POPULATION IN DARJILING DISTRICT IN 1901, 1931
AND 1961 WITH PERCENTAGE VARIATIONS

District/Subdivision/ Police Station/Town	Population			Percent- age va- riation (1901-31)	Percent- age va- riation (1931-61)
	1901	1931	1961		
DARJILING DISTRICT	2,43,117	3,19,635	6,24,640	+ 28.31	+ 95.42
DARJILING (SADAR) SUBDIVISION	91,953	1,19,178	2,03,523	+ 29.61	+ 70.77
Dārjiling	33,808	44,096	74,461	+ 30.43	+ 68.86
Jore Bungalow	15,472	21,090	35,261	+ 36.31	+ 67.19
Pulbazar	14,062	18,010	32,504	+ 28.08	+ 80.48
Sukiapukri	9,724	14,179	22,784	+ 45.81	+ 60.69
Rangli Rangliot	18,887	21,803	38,513	+ 15.44	+ 76.64
Dārjiling (Town)	16,924	21,185	40,651	+ 25.18	+ 91.89
KURSEONG SUBDIVISION	45,187	51,996	80,743	+ 15.07	+ 55.29
Kurseong	32,754	37,689	59,097	+ 15.07	+ 56.80
Mirik	12,433	14,307	21,646	+ 15.07	+ 51.30
Kurseong (Town)	4,469	7,451	13,410	+ 66.73	+ 79.98
SILIGURI SUBDIVISION	70,466	80,258	2,19,848	+ 13.90	+ 173.93
Siliguri	31,556	35,968	93,125	+ 13.98	+ 158.91
Kharibari	20,306	23,145	25,957	+ 13.98	+ 12.15
Phansidewa	18,604	21,145	58,573	+ 13.66	+ 177.01
Naxalbari	—	—	42,193	—	—
Siliguri (Town)	784	6,067	65,471	+ 673.85	+ 979.13
KALIMPONG SUBDIVISION	41,511	68,203	1,20,526	+ 64.30	+ 76.72
Kalimpong	34,238	54,841	96,047	+ 60.18	+ 75.14
Gorubathan	7,273	13,362	24,479	+ 83.72	+ 83.20
Kalimpong (Town)	1,069	8,776	25,105	+ 720.95	+ 185.95

1 Siliguri Planning Organization—*Interim Development Plan : Siliguri*, Calcutta, 1965. p. 9. Total number of workers employed in industry and construction in Siliguri urban area during this period rose from 2,194 to 5,744 persons or a rise of 162.6 per cent in a decade.

MIGRATION

Immigration (for various reasons) has been the largest single factor in the growth of population of the district. But emigration from the district has always been relatively negligible. Moreover, the emigrees, more often than not, have left the district only temporarily. The table given below gives figures of immigration into and emigration from the district from 1891 to 1961.

IMMIGRATION AND EMIGRATION : 1891-1961

Year	Actual population	Immigration	Emigration	Natural population
1891	2,23,314	1,19,670	962	1,04,606
1901	2,49,117	1,13,588	802	1,36,331
1911	2,65,550	1,11,269	6,000	1,60,281
1921	2,82,748	1,01,807	6,000	1,86,941
1931	3,19,635	1,00,700	3,455	2,22,390
1941	3,76,369	95,750	4,120	2,84,739
1951	4,45,260	1,00,311	6,900	3,51,849
1961	6,24,640	1,69,250	N.A.	4,55,390

The following table gives information about the places from which immigration took place into the district in 1901 and in 1961.

सत्यमेव जयते

PLACES OF ORIGIN OF IMMIGRATION INTO
DARJILING DISTRICT : 1901-1961

Immigration				
Year	From Nepal, Bhutan, Sikkim & Tibet	From Bengal districts	From other Indian States	From other countries outside India
1901	80,303	8,725 (Undivided Bengal)	34,549	814
1961	47,270	13,720 (West Bengal)	61,226	47,034 (including refugees from Pakistan & Tibet)

The following table furnishes data about movement of population between Dārjiling and neighbouring or other districts of Bengal/West Bengal from 1891 to 1951.

MIGRATION BETWEEN DARJILING AND OTHER
DISTRICTS OF BENGAL/WEST BENGAL : 1891-1951

Year	Immigration				Emigration			
	From neigh- bouring districts		From other districts		To neighbou- ring districts		To other districts	
	Male	Female	Male	Female	Male	Female	Male	Female
1891	8,368	6,640	1,688	691	1,674	1,124	338	131
1901	8,455	6,757	16,172	9,872	2,147	1,995	486	264
1911	2,000	1,000	2,000	1,000	1,000	2,000	600	400
1921	2,000	1,000	3,000	2,000	2,000	1,000	1,000	1,000
1951	2,032	935	2,256	1,565	2,990	2,547	4,361	2,747

The fact, noted earlier, that a large number of immigrants into the district came from Nepal remained unaltered in 1961. In the same year it was found that there were more immigrants from Bihar (including Oraons, Santals and Mundas) than from any other State in India. Immigrant refugees, mostly Bengali Hindus from the erstwhile East Pakistan have now become a quantitatively important segment of the population of the district. Most of them have settled in the plains portion of the district within Siliguri subdivision. A number of Tibetans have also come over after the Chinese occupation of Tibet. The following table gives information about the number of immigrants into the district, their places of origin and groupwise percentages according to the duration of their residence in the district as on 31st March 1961.

**MIGRANTS CLASSIFIED BY PLACE OF BIRTH AND
DURATION OF RESIDENCE IN DARJILING
DISTRICT IN 1961**

Where born	No. of migrants	Percentage of immigrants classified by duration of residence in the district in years					Period not stated
		less than 1	1-5	6-10	11-15	16 and over	
Born outside the district but within the State of Enumeration	13,521	16.95	33.42	17.18	13.39	16.71	2.34
Bihar	40,287	9.71	26.72	23.33	14.80	24.05	1.39
Sikkim	5,961	4.50	16.78	20.95	20.33	35.90	1.54
Nepal	41,109	6.84	20.32	17.56	16.13	36.85	2.31
Pakistan	38,162	25.37	24.13	17.44	21.05	11.44	.57
Tibet	4,717	*	*	*	*	*	*

*Figures not available

Refugees from
Pakistan

It will be seen from the preceding table that only 11.44 per cent or 4,364 out of a total of 38,162 persons from Pakistan residing in the district in 1961 had come to settle there before the partition of the country. Between 1946 and 1951, a total of 15,738 persons (8,931 males and 6,807 females) immigrated from the former East Pakistan into Dārjiling district. The rush of refugees in the first two years of migration was quite heavy ; but 1950, the year in which there were widespread disturbances in the former East Pakistan, saw the largest influx, when 5,285 persons (2,946 males and 2,339 females) arrived. The influx of refugees was also heavy in 1954, 1956 and 1960. The following table gives a sexwise distribution of refugees from the former East Pakistan living in the district in 1951 and 1961 :

Year	Percentage increase	Total No. of refugees	Males	Females
1951		15,738	8,931	6,807
1961	+ 142.4	38,162	21,194	16,968

In 1961 it was found that 21,794 persons (12,053 males and 9,741 females) or a little over 57 per cent of the total of 38,162 persons, lived in urban areas (mainly Siliguri), while 16,368 (9,141 males and 7,227 females) or a little less than 43 per cent had settled in the rural areas of the district.

The refugee influx has helped Siliguri town to grow in many ways. The Refugee Rehabilitation Department made donations to the Siliguri College and the Siliguri Commerce College to construct buildings. Land was also granted to the Siliguri Girls' Higher Secondary School for its building as these institutions were needed to meet the ever-increasing demand for education from the new settlers. The State Government also advanced more than Rs. 1,50,000 to the Siliguri Municipality to construct roads, make sanitary arrangements and arrange water supply in the refugee concentrations within the municipal limits. In addition, the Refugee Rehabilitation Department opened a market on a 3-acre plot of land at an expense of more than Rs. 10,000.00 for the benefit of about 800 refugee traders and named it 'Bidhan Market.' Half of these 8 refugee colonies are within Siliguri town and the persons staying there are mostly employed in urban occupations pertaining to the tertiary sector of the economy. Two are in the semi-urban area, the inhabitants of which are also employed more or less in the same sector. The other two colonies are in rural areas and engaged in the primary sector of the economy.²

With the annexation of Tibet by China, exodus of Tibetans to India began about the middle of 1951, which gained momentum and assumed fairly large proportions in 1956. But the main bulk of Tibetan refugees began arriving in India from 1959. The responsibility of rehabilitating the Tibetan refugees rests with an organization called the Central Relief Committee, under the direct supervision of the Ministry of External Affairs and the Ministry of Home Affairs of the Government of India. The expenses of running the colonies and the self-help centres for the Tibetan refugees are borne jointly by the Central Relief Committee, Government of India and Dalai Lama's Council at Dharmasala in Himachal Pradesh.

Refugees from
Tibet

There are five official production centres to which a number of Tibetan refugees are attached either as trainee-workers, trainer-workers, wage labourers or as self-employed workers. Except where there is provision for residential accommodation within the productive units, no special colonies have been set up for these displaced persons. The five production centres with their respective lines of specialization are as follows : (1) Tibetan Central

1-2 Source ; Subdivisional Officer, Siliguri.

Training (Handicraft) Centre of Lebung, P.S. Dārjiling, (2) Agricultural Co-operative Farming Society at Sonada, P.S. Dārjiling, (3) Lamahatta Agricultural Co-operative Society at Lamahatta, (4) Kalimpong Handicraft Self-help Co-operative Society, Kalimpong and (5) Sonada Handicraft, Dairy and Poultry and Agricultural Self-help Co-operative Society, Sonada. But these units can provide employment only to a fraction of the Tibetan refugees and hence a great number of them have to work either as petty traders and pedlars of handicrafts or as day labourers. Since there are no specified colonies, excepting residential quarters attached to the productive units, the Tibetan refugees live in small concentrations at various places, preferring sites near monasteries and those inhabited by the Bhutias. Thus they are to be found as small closed communities at Ghoom, Sukiapukri, Kurseong town, Sittong and Algarah.

A large proportion of the Tibetan refugees who are not attached to the production centres constitutes a floating population. For instance, out of 6,292 Tibetan refugees who settled in Kalimpong subdivision between 1959 and 1967, only 606 persons (345 males and 261 females) were found living there in November 1967.¹

Distribution of
population according to sex

The males accounted for 53.14 and the females 46.86 per cent of the district population according to the 1971 Census. But the percentage of females in urban areas is much less, being only 44.22 while in the rural areas females constitute 47.64 per cent of the total population. Women compose 48.25 per cent of the total population of the three hill subdivisions while in Siliguri subdivision the corresponding percentage is 44.63. The disparity of sexes is more marked in Siliguri town than in the urban areas in the hills. While in the urban areas of the three hill subdivisions the women compose 44.82 per cent of the population, in Siliguri town they form only 42.41 per cent of the population. The reason for this is not far to seek ; most of the immigrants into the urban areas of the hills, except traders from Bihar and Rajasthan, are permanent settlers and, as such, live with their womenfolk, whereas a great number of immigrants to Siliguri town are traders, skilled or unskilled workers and day labourers who are non-permanent residents. In the rural areas of Siliguri, too, specially in the tea gardens, more non-permanent residents are to be found than in the hill subdivisions. But in the rural areas in the hills, excepting some traders and white-collar workers, few people live as non-permanent residents.

The following table gives the subdivision-thana and town-wise break-ups of males and females in both rural and urban areas of the district as also the number of females per 1,000 males in those areas, as revealed by the Census of 1971.

¹ Source : Subdivisional Officer, Kalimpong.

**SUBDIVISION, POLICE STATION AND TOWNWISE DISTRIBUTION
OF MALES AND FEMALES IN RURAL AND URBAN AREAS OF
DARJILING DISTRICT : 1961**

District/ Subdivision/ Police Station/ Town (M)	Males			Females		
	Total	Rural	Urban	Total	Rural	Urban
DARJILING DISTRICT	4,15,442	3,14,934	1,00,508	3,66,335	2,86,631	79,704
SADAR SUBDIVISION	1,25,441	1,02,455	22,986	1,19,766	99,879	19,887
Pulbazar	—	21,247	—	—	19,900	—
Darjiling	42,834	19,848	22,986	39,168	19,281	19,887
Darjiling(M)	—	—	22,986	—	—	19,887
Sukiapukri	—	14,739	—	—	14,398	—
Jore-Bungalow	—	20,442	—	—	20,654	—
Rangli Rangliot	—	26,179	—	—	25,646	—
KALIMPONG SUBDIVISION	71,539	58,861	12,678	62,999	52,247	10,752
Kalimpong	54,130	41,452	12,678	48,106	37,354	10,752
Kalimpong(M)	—	—	12,678	—	—	10,752
Garubathan	—	17,409	—	—	14,893	—
KURSEONG SUBDIVISION	51,372	42,667	8,705	48,861	41,141	7,720
Mirik	—	14,429	—	—	14,090	—
Kurseong	36,943	28,238	8,705	34,771	27,051	7,720
Kurseong(M)	—	—	8,705	—	—	7,720
SILIGURI SUBDIVISION	1,67,090	1,10,951	56,139	1,34,709	93,364	41,345
Phansidewa	—	38,252	—	—	33,633	—
Siliguri	77,443	21,304	56,139	56,949	15,604	41,345
Siliguri(M)	—	—	56,139	—	—	41,345
Kharibari	—	23,584	—	—	21,139	—
Nakshalbari	—	27,811	—	—	22,988	—

The table below shows the variation of sexes (females per 1,000 males) in the district as a whole (with rural and urban break-ups) in 1901, 1931, 1961 and 1971.

**VARIATION IN SEXES (FEMALES PER 1000 MALES) IN
DARJILING DISTRICT IN 1901, 1931, 1961 AND 1971**

	1901	1931	1961	1971
Total	876	881	864	882
Rural	894	906	909	910
Urban	890	728	731	793

The four municipal towns in the district are Dārjiling, Kurseong, Kalimpong and Siliguri. The following table indicates the rural and urban distribution of population in the district as also the percentage shares (shown within brackets) of rural and urban areas to the total district population in 1901, 1931 and 1961 from which the progress of urbanization will be apparent.

Rural and urban
distribution of
population

**DISTRIBUTION OF POPULATION IN RURAL AND URBAN AREAS OF DARJILING DISTRICT IN
ABSOLUTE NUMBERS AND IN PERCENTAGES IN 1901, 1931, 1961 AND 1971**

	1901		1931		1961		1971	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
Darjiling District	2,19,871 (90.44)	23,246 (9.56)	2,76,156 (86.40)	43,479 (13.60)	4,80,003 (76.85)	1,44,637 (23.15)	6,01,565 (76.94)	1,80,212 (23.06)
Sadar Subdivision	75,028 (81.59)	16,925 (18.41)	97,993 (82.23)	21,185 (17.77)	1,62,872 (80.08)	40,651 (19.92)	2,02,334 (82.51)	42,873 (17.49)
Kurseong Subdivision	40,718 (90.11)	4,469 (9.89)	44,544 (85.67)	7,451 (14.33)	67,333 (83.40)	13,410 (16.60)	83,808 (83.61)	16,425 (16.39)
Kalimpong Subdivision	40,442 (97.43)	1,069 (2.57)	59,427 (87.14)	8,776 (12.86)	95,421 (79.18)	25,105 (20.82)	1,11,103 (82.58)	23,420 (17.42)
Siliguri Subdivision	69,682 (98.89)	748 (1.11)	74,191 (92.45)	6,067 (7.55)	1,54,377 (70.21)	65,471 (29.79)	2,04,315 (67.69)	97,484 (32.31)

It will be seen that the urban populations of Kalimpong, Sadar and Kurseong subdivisions (in that order) fall below the district average, while that of Siliguri is well above it. Darjiling, Kurseong, Kalimpong and Siliguri became municipal towns in 1850, 1879, 1945 and 1949 respectively. Kalimpong and Siliguri were, however, growing as urban centres by virtue of their being the headquarters of the respective subdivisions as also important *entrepot* markets served, in the case of Siliguri, by several railways and radiating roads, and in the case of Kalimpong, by a communication network with Tibet, Sikkim and Bhutan. The waning of trade between India and Tibet has affected Kalimpong adversely, but Siliguri has not only retained its position but has actually enhanced its rate of growth.

The table below prepared from data provided by the Census of 1971 indicates the relative urbanization of the four municipal towns in the district.

Name of town	Population	Area in sq. km.	Density of population per sq. km.	No. of houses occupied	No. of houses per sq. km.	No. of households
Darjiling	42,873	10.57	4,056	7,788	727	8,184
Kalimpong	23,430	8.68	2,699	4,236	488	4,628
Kurseong	16,425	5.05	3,252	1,184	234	3,087
Siliguri	97,484	15.54	6,273	14,400	927	17,962

It is evident from the preceding table that Siliguri is not only the most urbanized town in the district but is also the largest in respect of area and population. The following table gives percentage variations of the district's rural, urban and total population between 1901 and 1961.

	1901-11	1911-21	1921-31	1931-41	1941-51	1951-61	1961-71
Total	+ 5.31	+ 5.12	+ 12.85	+ 17.72	+ 17.58	+ 39.90	+ 25.15
Rural	+ 4.47	+ 4.00	+ 8.68	+ 15.30	+ 9.74	+ 31.46	+ 25.32
Urban	+ 14.89	+ 16.78	+ 51.48	+ 33.77	+ 62.44	+ 53.09	+ 24.59

According to the Census of 1971, there are 507 inhabited revenue *mauzas* in the district of which 74 are inhabited by less than 200 people each, 125 by 200 to 499 persons, 118 by 500 to 999 persons, 12 by 1,000 to 1,999 persons, 62 by 2,000 to 4,999 persons, 14 by 5,000 to 9,999 persons and one, namely Pulbazar by over 20 thousand residents.

Basti, whose nearest English equivalent would be a conglomeration of households, forms the basic unit of community life in the rural parts of the hill subdivisions including the tea garden

areas. Both horizontal and vertical contiguity of homesteads are necessary to give the territorial community its identity as a *basti*. When the greater part of the day-to-day social and economic activities of the bulk of the people, such as serving or being served in productive endeavours, attending the same daily or periodical market, drawing from the same sources of water etc. are limited to a certain number of more or less contiguous households, the inhabitants form a *basti*. Sometimes ethnic, occupational and religious similarities give the *bastis* a further dimension of homogeneity. Development of communications, spread of literacy and pressure of population have long been acting as agencies to break down the barriers of aloofness of the *bastis* and make them something like the *grams* of the plains. Big multi-ethnic and economically stratified villages like Pulbazar and Sukiapukri in the Sadar subdivision and Pedong in Kalimpong subdivision are cases in point. The establishment of statutory *gram panchayats*, meant to serve the revenue *mauzas*, has also affected the territorial structure of the rural society.

LANGUAGES

O'Malley's remark in the old Darjeeling District Gazetteer (1907) that "Darjeeling contains a polyglot population" is applicable even today. Apart from a number of languages and dialects of several branches of the Indo-Aryan family spoken in the district, both in the plains and the hills, many dialects of the Austric and the Dravidian families are also spoken in the plains, especially in the tea gardens. The group of languages and dialects falling under the Tibeto-Burman branch of the Sino-Tibetan speech family is, however, of great importance because of its linguistic peculiarity and dialectal variations.

Among the Indo-Aryan language family, Nepali speakers form the largest single group in the district. According to the Census of 1961 they numbered 3,69,130 (1,91,206 males and 1,77,924 females) accounting for 59.1 per cent of the then population. Bengali speakers numbering 1,15,172 (61,814 males and 53,358 females) and constituting 18.4 per cent of the population in 1961, came next, while Hindi speakers, numbering 47,842 (31,762 males and 16,080 females) and forming 7.7 per cent of the population occupied the third place, followed by 8,522 Oriya speakers, constituting 1.4 per cent of the population.

Of the Austric group of languages, Santali speakers numbering 7,993 (4,184 males and 3,809 females) account for 1.2 per cent of the population, followed by Munda speakers numbering 5,638 (2,979 males and 2,659 females) and constituting 0.9 per cent of the population.

Of the Dravidian language family, the largest number of speakers is to be found among the tribals. There are 17,860 Oraon speakers (9,931 males and 7,929 females) accounting for 2.8 per cent of the district population, followed by 1,216 Mal-

pahariya speakers, who have, however, been grouped with Bengali in the Census of 1961. Developed languages of the Dravidian family like Tamil, Telugu and Malayalam account for only 148,225 and 272 speakers respectively.

Among the various branches of the Tibeto-Burman group of the Sino-Tibetan speech family, there are, according to the Census of 1961, 8,171 Lepcha, 7,679 Tibetan, 2,388 Bhotia and 2,113 Sherpa speakers forming 1.3, 1.2, 0.4 and 0.3 per cent of the district population respectively. Among the speakers of different dialects, the Tamangs number 761, Limbus 260, Sunwars 214 and Newars 19. A study of these dialects reveal that the number of their speakers has decreased progressively from the beginning of this century because of adoption of Nepali.

Although, according to the Census of 1961, people belonging to as many as 119 mother-tongue groups were enumerated in the district, 16 of them were neither classified by Grierson earlier in his *Linguistic Survey of India* nor could they be classified by the Census authorities. Languages like English, French etc., which are related to countries beyond India, numbered 17. Some Indian languages, namely, Sanskrit, Kangri, Kannada and Rajbanshi had only one or two speakers in the district.

Categories of
mother tongues
& statistics of
minor mother
tongue groups

Of the Indo-Aryan speech family, Nepali belongs to the Himalayan group, Bengali to the Eastern group, Hindi to the Central group and Oriya to the Eastern group. Of the Central group, there are also speakers of Urdu (2,505), Marwari (2,008), Rajasthani (1,053), Panjabi (374), Gujarati (58) ; of the Eastern group, there are speakers of Sadri (9,586), Madhesi (2,095), Assamese (590), Bihari (248), Maithili (65), Bhojpuri (91), and Magahi (23) ; of the Southern group, there are speakers of Marathi (710) and Konkani (8) ; of the North-western group, there are speakers of Sindhi (36) and of the Dardic group, there are speakers of Kashmiri (22).

The immigrant tribals of the plains like the Oraons and the Mundas have also imported an Indo-Aryan mixed dialect, Sadri, from their original homeland in Bihar. The speakers of this dialect, mostly tribals, number 9,586, forming 1.5 per cent of the district population.

Besides the Tibetan, Bhotia and Sherpa speakers of the Tibeto-Burman language group of the Sino-Tibetan speech family, there are also those who speak Kagate (44), Garhwali (33) and Ladakhi (5). Of the same language group, and belonging to the pronominalized Himalayan branch, there are speakers of Limbu (260), Rai (233) and Khambu (3), and belonging to the non-pronominalized Himalayan branch apart from the speakers of Lepcha, Sunwar and Newari, already described, there are speakers of Mangari (58) and Gurung (4).

It is of some interest to look into the variations in the numerical strength of people speaking different languages in the district since the beginning of the present century. In 1901, Bengali speakers numbering 44,802 constituted 17.98 per cent and Nepali speakers numbering 45,320 accounted for 18.19 per cent of the district population. In 1961 Bengali speakers numbering 1,15,172 represented 18.43 per cent while Nepali speakers numbering 3,69,130 constituted 59.09 per cent of the population. The phenomenal spread of the Nepali language is attributable mainly to its adoption by several Tibeto-Burman linguistic groups forsaking their own tongues. The table below shows the generation variations in the strength of some important mother-tongue groups in the district between 1901 and 1961.

GENERATION VARIATION OF THE STRENGTH OF MOTHER-TONGUE GROUPS IN DARJILING DISTRICT : 1901-61

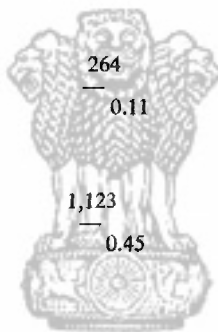
	1901	1931	1961
All languages	2,49,117	3,19,635	6,24,640
INDO-ARYAN			
BENGALI			
Total No. of speakers	44,802	37,444	1,15,172
Percentage variation	—	—16.42	+ 207.58
Percentage of speakers of all languages	17.98	11.71	18.43
HINDI			
Total No. of speakers	22,241	22,595	47,842
Percentage variation	—	+ 1.59	+ 111.73
Percentage of speakers of all languages	8.92	7.06	7.65
NEPALI			
Total No. of speakers	45,320	92,970	3,69,130
Percentage variation	—	+ 105.14	+ 297.04
Percentage of speakers of all languages	18.19	29.08	59.09
AUSTRIC			
MUNDA			
Total No. of speakers	3,783	5,649	5,638
Percentage variation	—	+ 49.32	—0.19
Percentage of speakers of all languages	1.51	1.76	0.90
SANTALI			
Total No. of speakers	1,608	4,771	7,993
Percentage variation	—	+ 196.70	+ 67.53
Percentage of speakers of all languages	0.64	1.49	1.27
DRAVIDIAN			
ORAON			
Total No. of speakers	7,449	11,742	17,860
Percentage variation	—	+ 57.63	+ 49.84
Percentage of speakers of all languages	2.99	3.67	2.81

**GENERATION VARIATION OF THE STRENGTH OF MOTHER-
TONGUE GROUPS IN DARJILING DISTRICT : 1901-61**

	1901	1931	1961
TIBETO-BURMAN			
TIBETAN—			
Total No. of speakers	1,686	2,774	7,679
Percentage variation	—	+ 64.53	+ 176.82
Percentage of speakers of all languages	0.67	0.86	1.22
SIKKIM-BHOTIA—			
Total No. of speakers	1,545	134	152
Percentage variation	—	—91.32	+ 13.43
Percentage of speakers of all languages	0.62	0.04	0.02
BHUTANESE BHOTIA—			
Total No. of speakers	2,504	1,499	—
Percentage variation	—	—40.13	—
Percentage of speakers of all languages	1.06	0.46	—
SHERPA BHOTIA—			
Total No. of speakers	3,477	5,627	2,113
Percentage variation	—	+ 61.83	—62.44
Percentage of speakers of all languages	1.39	1.76	0.33
LIMBU—			
Total No. of speakers	14,359	14,706	260
Percentage variation	—	+ 2.41	—98.23
Percentage of speakers of all languages	5.76	4.60	0.04
LEPCHA—			
Total No. of speakers	11,252	11,909	8,171
Percentage variation	—	+ 5.83	—31.38
Percentage of speakers of all languages	4.51	3.72	1.30
DHIMAL—			
Total No. of speakers	607	621	—
Percentage variation	—	+ 2.31	—
Percentage of speakers of all languages	0.24	0.19	—
MURMI—			
Total No. of speakers	25,165	32,319	—
Percentage variation	—	+ 28.42	—
Percentage of speakers of all languages	10.10	10.11	—
GURUNG—			
Total No. of speakers	4,132	2,029	4
Percentage variation	—	—50.91	—99.80
Percentage of speakers of all languages	1.65	0.63	—

**GENERATION VARIATION OF THE STRENGTH OF MOTHER-
TONGUE GROUPS IN DARJILING DISTRICT : 1901-61**

MANGARI—			
Total No. of speakers	11,174	10,445	58
Percentage variation	—	—6.52	—99.44
Percentage of speakers of all languages	4.48	3.26	0.01
KHAMBU—			
Total No. of speakers	32,775	44	3
Percentage variation	—	—99.86	—93.18
Percentage of speakers of all languages	13.15	0.01	—
NEWARI—			
Total No. of speakers	5,570	6,956	19
Percentage variation	—	+ 24.88	+ 99.72
Percentage of speakers of all languages	2.23	2.17	—
THAMI—			
Total No. of speakers	264	431	—
Percentage variation	—	+ 63.25	—
Percentage of speakers of all languages	0.11	0.13	—
YAKHA—			
Total No. of speakers	1,123	808	—
Percentage variation	—	—28.04	—
Percentage of speakers of all languages	0.45	0.25	—
MANJHI—			
Total No. of speakers	195	17	—
Percentage variation	—	—19.28	—
Percentage of speakers of all languages	0.07	0.01	—
HAYU—			
Total No. of speakers	24	3	—
Percentage variation	—	—87.50	—
Percentage of speakers of all languages	0.01	—	—
SUNWAR—			
Total No. of speakers	4,425	2,710	214
Percentage variation	—	—38.75	—92.10
Percentage of speakers of all languages	1.77	0.84	0.03
MECH—			
Total No. of speakers	275	450	134
Percentage variation	—	+ 63.63	—70.22
Percentage of speakers of all languages	0.11	0.14	0.02



सत्यमेव जयते

It appears from the preceding table that the percentage of Bengali speakers to the total number of speakers of different mother tongues in the district recorded a fall at the end of the first 30-year period (1901-31) but a rise at the end of the next (1931-61)—the influx of East Bengal refugees as also normal growth accounting for the latter. The Hindi speakers, on the other hand, recorded a slight increase at the end of the first 30-year period, but a remarkable rise during the next, most probably due to the district, and especially its Siliguri subdivision, gaining sudden importance to North Indian traders after the partition of the State. Nepali speakers steeply increased in numbers at the end of both the 30-year periods, due most probably to the adoption of the Nepali language by many erstwhile speakers of the Tibeto-Burman languages. That the Tibeto-Burman language groups have been giving way to the Nepali language, belonging to the Indo-Aryan family, right from the beginning of this century should be reckoned with as a significant trend of any linguistic study of the area. This was noticed in the Census report of 1901 which stated : "The gradual disappearance of the non-Aryan dialects is thus only a matter of time. Even now it is only in the remoter tracts and in the less accessible and inhospitable hills that they still flourish. . . . Throughout the Bengal plains Aryan languages reign supreme. And even in the hills, the struggle is going on and the non-Aryan dialects are gradually giving way". The Census report of 1931 observed : "The total number speaking languages of this group has declined by over one and a half thousand since 1921 and the decline is almost certainly to be attributed to the increasing ascendancy of Naipali or Khaskura over the tribal languages. . ."² It will be seen from the foregoing table that during the Census of 1961 no person speaking Bhotanese Bhotia, Dhimal, Murmi, Thami, Yakha, Manjhi and Hayu—all belonging to the Tibeto-Burman language group—was found in the district, and the number of persons speaking Sherpa, Bhotia, Limbu, Lepcha, Gurung, Mangari, Khambu, Newari, Sunwar and Mech had declined in relation to the corresponding figures of 1931. The number of Sikkim-Bhotia speakers had increased very little over the 1931 figures. Only the Tibetan speakers, many of whom were recent immigrants from Tibet, recorded a sizeable increase over the figures of 1931.

According to the Census of 1961, only 84,062 persons, or 13.46 per cent of the total of all mother-tongue groups, speak a subsidiary language. Although the census figures in this regard have limited applicability inasmuch as "for multilingualists only one subsidiary language was tabulated", the grouping of several subsidiary languages against one particular mother-tongue group would provide a fair idea of the extent of bilingualism prevalent

Bilingualism

1 E.A. Gait—*Census of India, 1901, Vol. VI, Pt. 1*. Calcutta, 1902 pp. 338-9.

2 A. E. Porter—*Census of India, 1831, Vol. V, Pt. 1*. Calcutta, 1933. p. 360.

in the district. Hindi, occupying the third position as a single mother-tongue group, is spoken by the largest number of persons (29,888) as a subsidiary language accounting for 4.78 per cent of the total number of speakers and 35.55 per cent of the persons speaking a subsidiary language. English occupies the next place as a subsidiary language having 19,673 speakers forming 3.15 per cent of the total of all language groups and 23.40 per cent of those speaking a subsidiary language. Nepali, occupying the first position as a single mother-tongue group, is relegated to the third place in order of importance as a subsidiary language with 19,374 speakers forming 3.10 per cent of the total of all language groups and 23 per cent of those using a subsidiary language. Bengali, occupying the second position as the language of a single mother-tongue group, stands fourth as a subsidiary language being spoken as such by 11,873 persons forming 1.90 per cent of the total number of speakers and 14.10 per cent of those using a subsidiary language.

RELIGION

According to the Census of 1971, there were 6,36,741 Hindus in the district forming 81.44 per cent, 91,358 Buddhists forming 11.68 per cent, 28,037 Christians forming 3.71 per cent and 23,523 Muslims forming 3.0 per cent of the district population. Christians are to be found both in the hills and the Terai but Muslims reside mostly in the plains where many of the Koches had embraced Islam a long time ago. Animists like the Oraons, Mundas, Kharias and Santals are mainly employed in the tea plantations. The religion practised in the region should be viewed in the light of the contacts obtaining among these divergent groups both in the hills and in the Terai. According to a recent publication : "The Newar gods and goddesses reveal on the one hand an intermingling of Hindu and Buddhist beliefs and practices ; and on the other, a predominance of the lower aspects of religion, characterised by such rituals as would be considered un-Brahminic by the orthodox Hindus. Besides, many of the deities which play a vital role in the Newar social life are clearly seen to be of aboriginal origin though they have been given the garb of divine personages of the higher order."

Hinduism

Although a number of Hindu temples has been built by the elite in the cities and some missionary activities have been undertaken by Hindu organizations, O'Malley wrote in 1907 : "The Hinduism professed in the district is nothing more than a thin veneer over animistic beliefs. Beneath this veneer the real popular religion can be seen in the worship paid to a host of spiritual beings whose attributes are ill-defined, but whose chief power is to cause evil to their votaries. The religion prevalent is in fact demonolatry, of which exorcism and bloody sacrifices are

1 G. S. Nepali—*The Newars*. Bombay, 1965. p. 286.

the most prominent feature.”¹ While Durga, Kali, Bhairava, Siva, Krishna and Vishnu of the Hindu pantheon are widely worshipped, *Azima* (*Sitala*) is propitiated to ward off attacks of smallpox as also *Lumari-mai*, *Loote-mai*, *Kankeswari-mai*, *Luchumari-mai*, all malignant female deities, to protect the people from their evil eyes. *Kumari* (virgin) worship, said to be a Buddhist cult, is also prevalent among the Hindus.

The Newars worship Manjusree and Machhendranath on a large-scale. The latter is said to have belonged to Buddhism of India, but the Newars came to regard him as a deified saint and he became very popular for his powers to ensure material prosperity to the people. Goraknath, the disciple of Machhendranath, on the other hand, is widely worshipped by the Gorkhas. There has been a fusion of divergent religious practices here resulting in rituals unheard of elsewhere. “Even Ganesh and Saraswati are offered animal sacrifices, a practice which is anathema to the Hindus in India. We also find duplication of gods for the same function. For example, for wealth, Naga, Laxmi, Basundhara and Bhimsen are worshipped. This can only be attributed to the assimilation of different ethnic groups with their respective religious cults into the larger religious system.”² In the Terai demonolatry and worship of evil spirits are extensively practised and Rajbansis there worship *Kalithakurani*, *Garam-devata* and *Bisaharithakurani* on a large scale.

Manjusree
Machhendranath

Kali, the principal goddess of the *Saktas* elsewhere in India is a kind of folk-goodness with these people. She has five variant forms, namely *Than-Kali*, *Bhadra-Kali*, *Haowa-Kali*, *Nanga-Kali*, and *Sasan-Kali*.

Kali

The form of Buddhism prevalent in the district is known as ‘Lamaism’. The *gompas* or the monastery is the pivot of the community life of both the Lepchas and the Bhutias. A Lama is the chief functionary of the monastery who performs monastic duties and rituals on behalf of a community. “Lamaism may be defined as a mixture of Buddhism with a preponderating amount of mythology, mysticism, and magic; the doctrine of incarnate lamas and the worship of canonized saints, now such prominent features of Lamaism, are of recent origin. It was readily accepted as it protected the people from devils.”³

Buddhism

Buddhism, in the form of Lamaism, is popular among the masses inasmuch as numerous wall-paintings of Buddhist gods and goddesses on way-side caverns, turning by laymen of prayer-

1 L. S. S. O'Malley—*Bengal District Gazetteers ; Darjeeling*, Calcutta, 1907. p. 48.

2 G. S. Nepali—*op. cit.*, pp. 340-1.

3 L. A. Waddell—‘Lamaism in Sikkim’ in the *Gazetteer of Sikkim* (H. H. Risley *et. al.*). Calcutta, 1894, p. 245.

wheels engraved with the mystic incantation 'Om Mani Padme Hum' ('Hail to the jewel in the lotus'), and fluttering prayer-flags can be seen all over the district. It is interesting to note that Buddhist festivities are not free from an animistic bias. The *Nam-ban* festival of the Lepchas accompanied by hymn-chanting of the Lamas, is essentially a festival to ward off misfortune during the ensuing year. *Ner-Kakyot* and *Losar*—similar festivals of the Buddhist Lepchas,—also exhibit animistic traits. The monasteries belong mostly to the *Nyingmapa* or the old school representing the primitive and unreformed style of Lamaism showing a strong predilection for indigenous pre-Buddhist religious practices with little emphasis on celibacy and abstinence. The Lamas of this order wear red robes.

There are also monasteries belonging to the *Geluk-pa* sect whose members are expected to carry begging bowls, don yellow garments like the Indian Buddhists and maintain a strict religious discipline. The influence of Christianity, a religion of recent growth in the area, is worth noting. "Attempts were also made to find out the trend of relationship between Christians, Animists and Buddhists. It has been noticed that the Christian Lepchas generally live near the church and usually live in a group. A few areas are widely populated by Christians, interspersed by Lepchas, Nepalīs, etc., professing the same faith. Roman Catholics and Protestants live side by side, but their relationship is more amiable with the members of their own church (Lepchas, Nepalīs or others). The Buddhist Lepchas have no objection to mixing with the Christian Lepchas socially or joining their functions, but because of their rather secluded nature they generally remain a bit aloof from the Christians in general who are usually better educated and are in better economic condition, thus enjoying higher position and prestige. In general, the relationship between the three religious groups is amiable."¹

Buddhists in the district numbered 64,044, 58,943 and 82,046 in 1901, 1931 and 1961 respectively. The 39 per cent increase between 1931 and 1961 is attributable to natural growth of the community as also the recent influx of a large number of Tibetan Buddhists into the district.

Animism

Apart from the undercurrent of animistic beliefs inherent in Hindu and the Buddhist rituals, animism as such is prevalent throughout the district. In the Terai, animism practised by the Oraons, Santals, Mundas, Kherias etc., is the same as in their native places in Bihar, but as practised by the Rajbansīs relating to the worship of river and other deities, it has already been accommodated within the Hindu fold. In the hill region, among the Lepchas the *Bonthings* are animists who perform festivals,

1 A. K. Das & S. K. Banerjee—*The Lepchas of Darjeeling District*. Calcutta, 1962. p. 108.

sacrifice animals and offer drinks to the malevolent spirits through simple incantations. The female counterpart of a *Bonthing* is a *Mon* or a *Bijoani* who is also supposed to have magical powers. It is not an uncommon sight to find Buddhist Lepchas taking part in animistic festivals of the non-Buddhist Lepchas consisting of *Mong Bree Meno* held in August for two days, *Mong Bree Jo Sing* held in the same month for two days, *Navang Gee* held also in August and for two days, *Khichari Mean* held in March for two days, *Gher Meno* held in the same month for two days and *Chhu Chhu Grum* held in any month. The festivals are attended with the sacrifice of pigs (usually white) offered for the wellbeing of individual families. Although these are mostly family festivals, the community as a whole joins such ceremonies on several occasions. Demonolatry and the fear of evil spirits have linked up animism with Hinduism and Buddhism of the region. In O'Malley's words : "The current belief is that there are a number of malevolent spirits to whom the ills of life are due, and who exercise their malicious influence on the bodies and minds of men by means of demoniacal possession. Worship, therefore, consists of periodical propitiation of them in order to escape their attacks, and the cure for disease is not medicine but exorcism."¹

Christianity followed the early European settlements in the district. According to O'Malley : "The first attempt to introduce the doctrines of Christianity among the hill tribes was made in 1841 by Mr. Start, a Baptist, who brought out from Europe a small band of German missionaries, and began work among the Lepchas in Darjeeling and its neighbourhood, the head-quarters of the Mission being at Takvar. . .The real beginning of missionary enterprise on an organised scale may practically be said to have been made in 1870. In that year the Church of Scotland started work among the aborigines of the district ; one division consisted of a short-lived mission in the Tarai, two German missionaries being sent out to preach to the Meches and Rajbansis ; in the other was Mr. Macfarlane of the same Church who came from Gaya and was the pioneer of Christianity among the hill tribes. His efforts were singularly successful, and he had the satisfaction before his death in 1887 of seeing over 600 native converts attached to the Mission."²

Numerically speaking, there were 4,467, 8,280 and 20,475 Christians in the district in 1901, 1931 and 1961 respectively. These figures, although indicative of a significant *inter se* growth of the Christian population, compare, in terms of absolute numbers, rather unfavourably with those of the other religious groups inhabiting the district.

¹ L. S. S. O'Malley—*op. cit.* p. 50.

² *ibid.* p. 51.

FESTIVALS

Dasehra

In the hill areas of the district, under the influence of the Hindu Nepalis, *Dasehra* is by far the most important festival, commemorating the killing of the demon Mahishasur by goddess Durga. "As *Dasai* (*Dashera*) approaches bringing with it all the smiles of life, beats of *madal* are heard all over the village. Joy and happiness fill the heart of the rustic folk. The married-away daughters come from afar to have a family reunion bringing *kosayli* (presents) to their parents. . . Sacrifices of goats and buffaloes are made to appease the goddess. . . As the married-away daughter departs towards her home, she offers marigold flowers to her brother. This means an invitation to the brother to the house of the sister for *Bhaitikka*."¹ The festival, lasting for ten days, usually begins in early October but the actual date is fixed according to astronomical calculations. On the eighth (*Astami*) day, buffaloes and goats are sacrificed to the deity with the help of *khukris*, the traditional custom being to sever the head of the animal with one stroke.

Diwali

Diwali, the festival of lights, takes place twenty days after the conclusion of the *Dasehra*. Commemorating the Hindu myth of Vishnu's victory over an invincible demon and his triumphal entry into the capital of heaven, the festival is noted for large-scale illumination of all manner of dwellings.

Lakshmi puja

Lakshmi puja, which is also accompanied by community illumination, is the greatest, dearest and merriest of all the festivals of the Nepalese. On this occasion, the huts are decorated with marigolds and the walls are painted with red soil and fresh cowdung. The cows are given special food and are garlanded with marigold flowers. The mother of the house puts *tilak* marks on the foreheads of the cows. In the evening, young village maidens gather under a peepul tree and as the first lights begin to be lit they go from house to house singing *bhailo*, the message of Bali Raja who, they believe, came to the earth from the nether world after a long exile.

Holi

Holi, the spring festival, is celebrated with great *eclat* for eight days preceding the full-moon day of the month of *Phalgun* in honour of Lord Krishna. "The ceremony consists in the erection of a wooden post, or pine tree, decorated with streamers of red-and-white cloth. On the last day of the festival this is burnt with much ceremony and the rite is believed to represent the burning of the body of the old year. During these eight days it is the fashion to perambulate the streets armed with a bag of bright red powder, known as *golal*, with which passers-by are plentifully bombarded. Little regard is paid to the clothes, and towards

¹ M. M. Gurung—'A brief survey of Nepalese folksongs and dances' in *Flok music and Floklore* (Ed. H. Biswas), Vol. I. Calcutta, 1967. pp. 88-90.

the latter part of the festival most people exhibit traces of their active participation in it.”¹

Temperamentally, the Nepalis are a joyous people and they participate in their social and religious functions with a good deal of enthusiasm and gaiety. Folk-songs known as *Balum*, *Sangini* and *Bhajan* of the high caste Brahmins and Chhetris, *Chebroong* of the Limbus, *Dhamphu* of the Tamangs, *Khirkhutay*, *Gormu* and *Rebloom* of the Sherpas, *Hakparay* and *Laibari* of the Rais, *Lakhay* and *Yatras* of the Newars and ceremonies attached to *Rodi Ghar* of the Gurungs—all point to the variety of their folk songs and dances. They have also numerous songs called *Asaray*, *Mangsiray*, *Rusia*, *Baramasay*, etc., relating to sowing and harvesting as also the seasonal changes. Minor festivities occur throughout the year except the month of *Sravan* (July-August) when “they believe it to be the month of meditation and quietness. No social event including marriage takes place in the villages. It is against social tradition to play any musical instruments during the month because the rustic folk believe that the gods descend down from heaven to have their annual rest underneath the earth during the month. To disturb the resting gods by merry-making is to invite curse upon the crops which are ripening.”

Festivities

The *marooni* or *madal* dance is dear to all Nepalis. The *maroonis* are the dancers who are males but they are attired in female costumes and jewellery to take part in this socio-religious dance form.

The Rajbansis of the Terai, who are the autochthones of the region, have, like all tribes and under-developed castes, animistic beliefs super-imposed by a veneer of the rites and rituals of the upper-caste Hindus. One of their important festivals is *Mechei Khela* which is connected with the worship of the river-goddess *Tista*. It is not known if the festival originated among the *Meche*s, a tribe of the region and now included among the Rajbansis, but it is quite apparent that the deity is as sacred to them as the Ganga to the Hindus. “Only the women take part in this worship. On the first day of *Baisakh* the women take a bamboo basket, wrap it in red cloth, place it on the crossing of a road under an open umbrella and worship the *Tista Buri* with flowers and vermilion without any incantation. The basket is then taken to the house of the head of the party and placed in the *Bastu ghar* or under the basil plant of the house. From the second day the women move from house to house in a party with the bamboo basket, holding an umbrella over it. They sing, dance and collect subscriptions. On the last day of *Baisakh* (April-May) they retire to the side of a tank or river and perform the *Tista Buri puja* with the help of a priest. ...After the worship

Festivals of the Rajbansis

Mechei Khela

¹ W. B. Northey and C. J. Morris—*The Gurkhas ; Their Manners and Country*. London, 1928. p. 80.

the flowers are thrown into the water, the basket is washed and brought home for the next year."¹ Similar other local festivals are *Bas Khela*, occurring in the Bengali month of *Baisakh* (April-May) and celebrated for the welfare of the village and for warding off epidemics and *Oagara puja* or *Gotsu-puna puja*, held in *Jyaishtha* (May-June) and connected with the transplantation of paddy. Other festivals connected with agricultural operations are *Lokhi Dak*, *Dhan Kata puja*, *Naya Khawa*, etc. When there is protracted drought in the area, a special ceremony called *Hudum Deo puja* is performed by the womenfolk at night. They go in the dark to a distant paddy-field, strip off their clothes, untie their hair and sing and dance abusing the rain-god. "Two women kneel on the ground like cows and draw a plough to scratch a few feet of the land. Into the furrow thus formed they spread some paddy seeds or plant a few paddy seedlings."² Manasa, the serpent deity, is also a popular goddess and is worshipped as *Bishahari*.

From numerous other religious festivals like *Jitu puja*, *Dharma thakur puja*, *Gorakmath puja*, *Garam puja*, etc., it will be seen that folk rituals are also present on a wide scale as is found in all tribal societies.

SCHEDULED CASTES

According to the Census of 1961, members of Scheduled Castes in the district numbered 82,381 (43,241 males and 39,140 females) forming 13.1 per cent of the district population. They included 19,851 Kamis, 9,366 Damais and 3,296 Sarkis who were declared as Scheduled Castes by the President of India in 1956 and were, therefore, not enumerated as such in the 1951 Census. The rural-urban break-up of Scheduled Caste population in the district in 1961 was 80.68 : 19.32 : 34,104 males and 32,360 females lived in the rural areas and 9,137 males and 6,780 females lived in the urban areas of the district. In 1971, Scheduled castes people of the district numbered 98,277 forming 12.57 per cent of the district population. They were spread as follows in different police station areas : Sukhiapokhri 3,008 ; Pulbazar 2,338; Darjiling 8,790 (including 5,615 of the municipal area); Rangli Rangliot 4,121; Jore Bungalow 3,131; Kalimpong 9,043 (including 3,184 of the municipal area); Gurubathan 2,558; Kurseong 8,794 (including 1,740 of the municipal area); Mirik 2,286; Nakshalbari 11,278; Siliguri 13,484 (including 4,279 of the municipal area); Phansidewa 16,568; and Kharibari 12,878.

¹ C. C. Sanyal—*The Rajbansis of North Bengal*. Calcutta, 1965. P. 138

² *ibid* p. 133.

The following table gives the populations of the various Scheduled Castes as in 1961.

Name of community	Population	Name of community	Population	Name of community	Population
Bauri	21	Jhalo Malo	169	Mal	108
Bagdi	2,622	Kadar	16	Mallah	216
Bediya	10	Kami	19,851	Mehtor	1,130
Beldar	6	Kaora	150	Namasudra	2,617
Bhuimali	192	Karenga	11	Nuniya	223
Bhuiya	228	Kaur	43	Pan	15
Bind	30	Keot	152	Pasi	62
Muchi	1,603	Khaira	139	Paliya	196
Dhoba	879	Khatik	113	Patni	9
Dom	198	Koch	44	Pod	1
Dosadh	404	Konai	11	Rajwar	44
Damai	9,366	Konwar	4	Rajbansi	31,472
Doai	146	Kotal	11	Sarki	3,296
Ghasi	409	Lalbegi	33	Sunri	125
Gonrhi	37	Lohar	1,209	Turi	394
Hari	426	Mushahar	113	Tiyar	3
Kaibarta	1,213	Mahar	76		

The 1961 Census recorded cent per cent Scheduled Castes in villages Meherulla (J.L. No. 61) in P.S. Phansidewa, composed mainly of Rajbansis, Lohars and Bagdis and in Champashari Chat (J. L. No. 38) and Thiknikata (J. L. No. 94) in P.S. Siliguri, composed of Rajbansis.

Damais, treated as a Scheduled Caste for the first time in 1956, are considered untouchables in some places of Nepal. In Dārjiling they follow their caste avocations of tailors and drummers. They are mainly Hindus and speak Nepali.

Damais

According to Risley, Kamis were blacksmith castes of Nepal and claim descent from the mythical artificer *Visvakarma* and seem to have entered Nepal from the plains of India. They also work in precious metals. They speak Nepali.

Belonging to the cobbler caste, the Sirkis in the district numbered 9,826 in 1901, 11,331 in 1931 and 3,296 in 1961. The appreciable decrease during the 1931-61 period may possibly be due to the disinclination of many of them to declare themselves during the 1961 Census as belonging to a very low caste. Formerly recruited as leather workers attached to Gorkha regiments, they according to Dash, "are numerous in towns and tea gardens in the hills and Kalimpong Khas Mahals."¹

Rajbansis

The Rajbansis of the district are mainly concentrated in the Terai. Considered to be one of the sixteen numerically important Scheduled Castes of the State in 1961 and one of the five largest Scheduled Castes in 1951, they had a population of 15,894 in 1951 and 31,472 in 1961 showing an increase of 98% during that decade. Though according to earlier authors like Dalton, Risley, Gait and Hamilton, they disowned affiliation with any tribal group there is reason to believe that they are converted Koches. According to Risley, the Rajbansis, the Koches and the Paliyas have the same origin and come from a Dravidian stock with a possible admixture of Mongoloid blood. Speaking a distinct dialect of Bengali, the Rajbanis mostly declared Bengali as their mother-tongue during the Census of 1961.

The Census reports of 1872, 1881 and 1891 enumerated Koches, Rajbansis and Paliyas under one head 'Koch'. O'Donnel in the Census report of 1891 had enumerated 33,472 Koches in the Darjiling district. It appears that in 1901 all sub-sections of Koches were recorded as Rajbansis and in 1911 and 1921 Paliyas were also recorded as Rajbansis. In 1921 many Rajbansis were shown as Kshattriya. F. O. Bell in his *Final Report on the Survey and Settlement Operations in Dinajpur : 1934-40* (published in 1942) has stated : "Formerly, they (Rajbansis and Rajbansi Kshattriyas that are found in large numbers in Rangpur, Jalpaiguri and Cooch-Behar) were known as Paliyas. Officially in the census they were listed as Rajbansi Kshattriyas. There has always been some difficulty in distinguishing them from Koches, if indeed there is any distinction. . . The Koch, Rajbansi and Paliya are really the three names for the same thing."

Koches

Generally classed with the Rajbansis, the Koches returned a population figure as small as 44 in the district during the Census of 1961. According to Dalton : "It seems more likely that they

¹ A. J. Dash—*Bengal District Gazetteers ; Darjeeling*. Calcutta, 1947. p. 75.

(the Koches) originally belonged to the dark people whom they resemble, who were driven out of the Gangetic provinces when the kingdoms of Mithila and Magadha were established by the lunar and solar races, rather than to the northern Turanian or Indo-Chinese family, to whom they are so unlike ; in short, I consider they belong to the Dravidian stock, and are probably a branch of the great Bhuiya family, and we thus obtain a clue to the tradition of the Baara Bhuiyas, to whose period of rule so many great works in Assam are ascribed."¹ Risley, however, considered that they were of Dravidian origin with some admixture of Mongolian blood. "As described by Buchanan at the beginning of the century and by Hodgson some fifty years ago, the Kochh tribe was unquestionably non-Aryan and non-Hindu. Now the great majority of the Kochh inhabitants of Northern Bengal invariably describe themselves as Rajbansis or Bhanga-Kshatriyas—a designation which enables them to pose as an outlying branch of the Kshatriyas who fled to these remote districts in order to escape from the wrath of Parasu-Rama."²

The Paliyas supposedly originating from the same stock as the Koches and the Rajbansis had a population of only 196 in the district in 1961. Mainly cultivators, they follow Hinduism and speak Bengali.

Paliyas

In 1971 there were 1,08,586 Scheduled Tribes people (56,047 males and 52,539 females) forming 13.89 per cent of the total district population and 4.29 percent of the total Scheduled Tribes population of the State.

SCHEDULED TRIBES

According to the Census of 1961, the total Scheduled Tribe population of the district was 96,444 (50,685 males and 45,759 females) of whom 44,633 males and 40,599 females lived in rural and 6,052 males and 5,160 females lived in urban areas of the district. The total Scheduled Tribe population accounts for 15.44 per cent of the total population of the district and 4.70 per cent of the total Scheduled Tribe population of the State. The rural-urban break-up of Scheduled Tribe population in the district in 1961 was 88.37 : 11.63. In 1951 the persons belonging to Scheduled Tribe in the district numbered 46,539, thus accounting for a percentage increase of 107.23 in 1961. The following table (compiled from 1961 Census figures) would indicate the respective populations of various Scheduled Tribes inhabiting the district.

¹ E. T. Dalton—*A Descriptive Ethnology of Bengal*, Calcutta, 1872, pp. 89-92.

² H. H. Risley—*The Tribes and Castes of Bengal*, Vol. I. Calcutta, 1891, pp. 491-500.

Name of tribe	Population	Name of tribe	Population
Bhutia	22,086	Munda	8,564
Bhumji	20	Magh	63
Chakma	2	Mahali	989
Garó	167	Mech	237
Hajong	27	Mru	20
Kora	287	Nagesia	1,384
Kheria	1,439	Oraon	28,388
Lepcha	14,910	Rabha	30
Paharia	1,636	Santal	7,308

In 1971, the various Scheduled tribes in the district numbered as follows :

Name of tribe	Population	Name of tribe	Population
Bhutia	30,442	Magh	41
Chakma	59	Mahali	647
Chik Baraik	1,544	Malpahariya	2,443
Garó	203	Mech	253
Hajong	46	Munda	6,894
Kheria	1,744	Nagesia	855
Kisan	713	Oraon	26,682
Lepcha	13,536	(Others)	11,167
		Santal	10,335

In 1961, the tribal population in the Kālimpong, Dārjiling and Kurseong towns was 20.1, 12.1 and 6.7 per cent of the respective total populations. From the thanawise distribution of tribals in the district it is evident that Santals, Mundas, Oraons, Nagesias, Lohar, Malpaharias and Mahalis, all immigrants from

the Chotanagpur region of Bihar, have mostly settled in the tea plantations in the Terai while Lepchas and Bhutias are concentrated in the hilly portions of the district. According to the Census of 1961, only Scheduled Tribes lived in the villages Ruke Forest in P.S. Gorubathan, composed mainly of Bhutias, Lepchas, Kharias and Oraons; Panaullar Chhat, Bhariadangir Chhat, Sastugachah, Dhaknagachh and Paik Para-Arazi in P.S. Phansidewa, comprising mainly Oraons, Santals and Mundas; Khoklong Duramarir Chhat, Shalbari Chhat and Bataner Chhat in P.S. Siliguri, consisting mainly of Oraons and Mundas and Mir Janglar Chhat, Pahargumia T.E. in P.S. Nakshalbari, composed mainly of Oraons and Mundas.

In 1951 Bhutias in the district, taken alone, numbered 4,018 but taken together with Dukpas, Kagates, Sherpas, Tibetans and Yolmos, numbered 18,959 10,485 (males and 8,474) females.¹ There was an increase of 16.4 per cent in their total numbers in 1961. Generally professing the Buddhist faith, Bhutias are traditionally agriculturists, tradesmen, graziers and stock breeders. Since the closure of trade between India and Tibet through this district, they have been put to hardship but now some of them are engaged in white-collar jobs at different places.

Bhutias

Since mountaineering in the high Himalayas has been an international sport, the Sherpas of Dārjiling have attained world-wide renown as tough porters and expert guides in high altitudes. 'Sherpa' is a Tibetan word meaning, simply, 'an easterner'. They speak a dialect of Tibetan but know Nepali equally well. Originally of pure Tibetan stock and living at Sola Khumbu in Nepal they have mixed with the local inhabitants. The Sherpas still living at Sola Khumbu at a height of about 14,000 feet above sea level are probably the highest livers in the whole Himalayan range. They are usually men of tremendous stamina and can carry heavy loads at very high altitudes. It is from this race that porters are recruited for expeditions to the high Himalayan peaks. Their normal occupation consists of load carrying and a large number of them are to be found in Dārjiling town.

Sherpas

"In their own homes the Sherpas are almost wholly Tibetan in their manners and customs. Extremely superstitious, their religion appears to be almost the same as the somewhat corrupt form of Buddhism followed in adjacent Tibet; but surrounded as they are by followers of the Hindu religion it is not unnatural that they should have adopted certain Hindu practices. They have, however, no system of caste, but it is not improbable that this may follow as the Sherpas come more and more, as they are almost bound to do, under Hindu influence."²

1 A. Mitra—*The Tribes and Castes of West Bengal*. Calcutta, 1953. p.94.

2 W. B. Northy and C. J. Morris—*op. cit* pp. 252-3.

Lepchas

The Lepchas in the district numbered 13,164 and 14,910 in 1951 and 1961 respectively thus accounting for a 13.2 per cent increase in their numbers during the 1951-61 decade. They are mainly concentrated in the Kalimpong, Kurseong and Garubathan police stations. They belong to the Mongoloid racial stock.

"The Lepchas are mostly agriculturists. Some of them work as daily labourers (such as, stone breaking, coolie work etc.) A good number of them also depend on handicraft (mainly on carpentry) as the principal source of their livelihood. At present some Lepchas are employed in service, of which teaching and Government services are worth mentioning." ¹

Meches

In 1951 Meches in the district numbered 224 which increased to 237 in 1961. According to Dalton they and the Koches belong to the same stock. Meches are now being accepted within the Rajbansi caste and there is "free inter-marriage between Rajbansis, Koches, Meches and Bhuimalis."² Shifting cultivation was once their main occupation. They are adept in spinning, weaving, fishing etc. and are now settled agriculturists and labourers in the hilly regions.

SOCIAL LIFE

Family size

The size of a family depends primarily on its income, on the laws and customs of inheritance, and conventions governing the residence of married sons and daughters, widowed sisters or unmarried brothers, etc. in the family.

The following table prepared from the data provided by the Census of 1961, from a sample survey of 20 per cent of households in each category, gives broad employment-categorywise sizes of households in the rural areas and a general indication of the same in the urban areas of Darjiling district. The table also gives the sizes of landholding households according to the corresponding sizes of holdings. According to the definition given by Census authorities, a household is composed of one or more persons residing in one or more adjacent houses but having one hearth, which, as will be noticed, includes all conceivable types of families, unitary or extended, elementary or joint and even tends to include boarding houses, etc.

1 A. K. Das & M.K. Kaha—*Handbook on Scheduled Castes & Scheduled Tribes of West Bengal*. Calcutta, 1966. p. 131.

2 C. C. Sanyal—*op. cit.* p. 65.

**SIZE OF HOUSEHOLDS ACCORDING TO LANDHOLDING AND
BROAD EMPLOYMENT CATEGORIES IN RURAL AND
URBAN AREAS OF DARJILING DISTRICT (FROM
CENSUS, 1961 : BASED ON 20% SAMPLE)**

Sector/Types of employ- ment/size of landholding	Total number of sample households (20% of the total)	Average population per household		
		Persons	Males	Females
RURAL				
Households engaged neither in cultivation nor in house- hold industry	6,383	4.22	2.24	1.98
Households engaged in household industry only	193	4.82	2.79	2.03
Households engaged in cultivation only	12,072	5.49	2.83	2.66
Holding less than 1 acre	4,548	5.13	2.57	2.56
Holding 1.0— 2.4 acres	2,726	5.12	2.63	2.49
„ 2.5— 4.9 „	1,995	5.44	2.87	2.57
„ 5.0— 7.4 „	1,377	6.02	3.13	2.89
„ 7.5 — 9.9 „	444	6.71	3.60	3.11
„ 10.0 —12.4 „	367	7.20	3.83	3.37
„ 12.5—14.9 „	109	7.31	4.13	3.18
„ 15.0—29.9 „	286	7.80	4.23	3.57
„ 30.0—49.9 „	38	8.02	4.26	3.76
„ over 50 „	26	7.26	3.80	3.46
URBAN	5,437	4.86	2.72	2.14

In the first category of rural employment in which the persons covered are neither engaged in cultivation nor in household industries, fall the workers engaged in tea and cinchona plantations, transport workers, miners, shepherds and sundry poor day labourers. For obvious reasons, the average size of their families is the smallest. More or less similar is the case of those engaged in household industries who have even smaller average households than those owning 2.4 acres of land or less. This affirms the poverty of the artisans in particular and the poor condition of household industries of the district in general.

The average size of households of those engaged in cultivation is larger than those engaged in any other type of occupation. It is clear from the preceding table that the larger the size of the holding (up to 50 acres), the larger is the size of the family. The average size of the family in households holding over 50 acres of land is, curiously, smaller than that of those holding 12.5 to 14.9 acres. The surplus income of the former group stimulates higher education among the young members of such relatively affluent families who not only migrate to other places to get suitable jobs but also marry late.

The average size of the family in urban areas is little larger than that of those engaged in household industries alone. But this should not mean that the former has the same economic status as the latter. Many of those in the urban areas, specially those who are engaged in the secondary sector of the economy as workers in Siliguri town or in the tertiary sector of the economy as traders from north India in Siliguri, Dārjiling, Kurseong and Kalimpong towns, often live as non-permanent residents in single-member households which tends to lower the size of the average household in the urban areas.

The following table prepared from the census data of 1961, gives an idea about the composition of the average family engaged in the three aforementioned broad economic categories in rural areas and the average family in the urban areas. For its preparation, exactly similar number of identical samples have been used

HISTORY & PEOPLE

137

	% of heads of households to total household		Married relations per household			Never married/ widowed/divorced relations		Unrelated persons per household	
	Males	Females	Sons	Other males	Other females	Males	Females	Males	Females
RURAL									
Household engaged neither in cultivation nor in household industry	86.76	12.86	0.06	0.07	0.12	1.13	1.08	0.15	0.01
Households engaged in household industry	93.77	6.21	0.06	0.12	0.10	1.50	1.20	0.17	nil
Households engaged in cultivation	90.10	9.84	0.13	0.08	0.26	1.64	1.53	0.05	nil
Holding less than 1 acre	86.05	13.94	0.09	0.05	0.21	1.59	1.57	0.02	nil
Holding 30.0-49.9 acres	97.36	2.64	0.42	0.44	0.79	2.15	2.29	0.26	0.08
Holding over 50 acres	92.30	0.07	0.34	0.27	0.80	2.23	1.76	0.03	nil
URBAN	88.09	11.10	0.08	0.12	0.18	1.39	1.19	0.22	0.03

On an average, 89.68 per cent of the households in the district have males as their heads while only 10.02 per cent of the families have women as their heads. While 9.37 per cent of the female heads-of-families enjoy that status as they are either widows without adult male children or because their husbands stay elsewhere, or because they are not married or separated. But, curiously, in 0.65 per cent of the families, women officiate as heads of households although their husbands are present in the family.

It would appear from this analysis that elementary families comprising husband, wife and unmarried male and female children are generally the rule, although married brothers having common means of income occasionally form extended families.

Elementary or nuclear family is the rule among the plantation workers of Oraon, Munda, Santal and Rajbansi extractions in the plains and of Kiranti and Nepali tribal stock (e.g., Limbu, Khambu, Yakha, Tamang, Jimdar, Gurung, etc.) as also Lepchas and Bhutias (including Bhutanese, Sikkimese and Tibetan Bhutias) in the hills. Among the agricultural Lepchas, Bhutias and Kirantis too such families are common. But upper caste Nepali Hindus like Brahmins, Chhetris, Sannyasis, Thakuris, Newars (including *Buddhamargis*), as also the Mangars and Gurungs and the Rajbansis seem to have extended families when they earn reasonably well from land, trade or commerce. Traders from North India running big establishments, are found, more than their Bengali counterparts, to live in joint families. Bengali caste Hindu *jotedars* also seem to prefer joint families.

Among the Lepchas and the Sikkimese, Tibetan and Bhutanese Bhutias, a household rarely includes two married couples. When one of the old parents dies, a son or a daughter takes care of the widowed parent, who joins his (or her) household. There is no rule as to which offspring should shoulder such responsibility. If there is an unmarried son in the house, the widowed parent will remain there and when the son marries his wife will join the household. A widowed sister who has no child or has only small children, may become a dependent of her brother, or of her late husband's elder brother.

Inheritance

The laws and customs regarding inheritance differ among the various ethnic groups of the district. Those prevailing among high-caste Nepali Hindus, like the Brahmins, Chhetris or Khasas, Sannyasis and Thakuris, as also among the former tribes now identified as Gorkhas, like the Mangars, Gurungs and Sunwars "do not on the whole differ very much from those in force in India (North India), under which the eldest son obtains the largest share of the property, while provision is also made for the widow and other children. They vary slightly, however, amongst certain tribes. In the case of the Gurungs, for instance, the eldest son is entitled to the best of live-stock, such as buffaloes

and cows, while the land is divided equally amongst the next-of-kin. Again, amongst the Rais of Eastern Nepal, the distribution of the property of a dead man is usually made by a small committee formed of six or seven of the elders of the village. Here the largest share again is usually given to the eldest son, or should there be no offsprings, then to the eldest surviving brother of the deceased. Amongst the last named tribes a pretence is usually made of apportioning shares to the sisters and daughters of the dead man, but in actual practice they invariably receive nothing at all, whereas amongst the Gurungs, daughters and sisters, provided they are not of marriageable age, are awarded equal shares."¹

The system obtaining amongst the Limbus may be taken to represent the inheritance pattern of the various Nepali Kiranti groups. Among the former, "at a man's death his sons, natural or adopted, divide his property ; but an adopted son or a natural son by a wife informally married (*kachchi sadi*) takes only one-half of a legitimate son's share. The division of the property is usually made by the tribal council (*thum-thum*), who set apart an extra share for the eldest son. The youngest son is allowed to choose his share first, and the other shares are then allotted by the *thum-thum*. Failing sons, the son-in-law actually living in or willing to live in the family homestead are entitled to divide the property. Brothers are the next heirs, and married sisters, if they attend the funeral, usually get a small share of the inheritance, although it is said that they have no positive right to claim this concession. . . . Hardly any instances are known of Limbus having resorted to courts for the settlement of disputes regarding property."² But in the multi-ethnic Nepali community of Darjiling district, where each ethnic group is interspersed with many others, the traditional tribal councils have lost much of their powers.

The Lepcha customs of inheritance differ very little from those obtaining among the Tibetan, Sikkimese and Bhutanese Bhutias, except in the content of succession. The rule of inheritance among them all is "equal division among all sons. When married sons live in the same community, they tend to take possession of the land undivided, though normally each couple has an independent residence. . . . A daughter, who is normally excluded from a share in the property, inherits in the absence of a son ; though the chances of her doing so are rather rare because parents who have no son often wish to adopt a son from among their near relatives, or sometimes from non-relatives, instead of handing over the property to the daughter, whose husband would evidently become the successor.

1 W. B. Northey & C. J. Morris—*op. cit.* p. 103.

2 H. H. Risley—*The Tribes and Castes of Bengal : An Ethnographic Glossary*. Vol. II. Calcutta, 1891. pp. 19-20.

The customs governing succession and inheritance among the Koches, Paliyas and Desis, before they came to form the Hindu caste of Rajbansis are not precisely known. The Rajbansis now follow the *Dayabhaga* system of inheritance like other Bengali Hindus but with a difference as their systems of marriage differ from those of the caste-Hindu Bengalis. The Rajbansi family is patrilinear and patrilocal and, as such, people of the patri-clan always have a greater claim than those of the matri-clan on the properties of a deceased person.

Succession among the Mundas of the district follows the general pattern of inheritance among the tribe. "Property is equally divided among the sons, but no division is made until the youngest son is of age. With them....daughter get no share in the inheritance; they are allotted among the sons, just like livestock. Thus if a man dies, leaving three sons and three daughters and thirty head of cattle, on a division each son would get ten head of cattle and one sister; but should there be only one sister, they wait till she marries and divide the *pan*, or bride-price."¹

Among the Santals, "sons inherit in equal shares; a daughter has no claim to a portion as of right, but usually gets a cow given to her when the property is divided....If a man dies leaving young sons, his widow manages the property till all the sons are old enough to divide and start separate households. She then takes up her abode with the youngest. Should the widow marry outside the family, the male agnates take the property in trust till the sons are of age, and she gets nothing. If a man has male relatives, he cannot give away his property even to his son-in-law."²

The Bengali Hindus of the district follow the *Dayabhaga* system of inheritance while the north Indian Hindus follow the *Mitakshara* system. Muslims of the district, irrespective of whether they are Bengalis or not, follow the *Shariyati* laws of succession.

According to reports received from local officials it seems that grooms choose their mates freely these days, that monogamy is the usual practice among the people of the district, that the dowry system is on the wane, and that divorce is seldom resorted to. Marriage is still by and large a traditional social function as is attested by the following table giving very low figures of marriages registered in the district under the Special Marriage Act, 1954.

¹ H. Risley--*op. cit.* pp. 104-5.
p. 231.

Year	No. of marriages	Year	No. of marriages	Year	No. of marriages
1955	12	1960	3	1965	7
1956	15	1961	6	1966	9
1957	18	1962	11	1967	7
1958	26	1963	17	1968	9
1959	15	1964	9		

The average ages of bridegrooms and brides in such marriage are 27 and 20 years respectively while in rural areas marriages still take place at ages below 20 for both the partners.

Matrimonial suits are infrequent since marital maladjustments are still largely social issues settled on the social plane. No suit was filed in the district between 1955 and 1966 for declaring a marriage null and void and only one was instituted in 1960 for restitution of conjugal rights, which, again, was dismissed for default. The following table gives details of divorce and judicial separation suits filed in the district between 1955 and 1966. 1

Matrimonial suits

Year	Divorce Suits			Judicial Separation Suits		
	Filed	Allowed	Dismissed	Filed	Allowed	Dismissed
1955	1	nil	1 (for default)	nil	nil	nil
1956	nil	nil	nil	nil	nil	nil
1957	nil	nil	nil	3	2	1
1958	1	1	nil	3	3	nil
1959	1	1	nil	3	nil	3 (for default)
1960	1	nil	1 (withdrawn)	1	1	nil
1961	1	nil	1 (for default)	1	nil	1 (for default)
1962	2	2	nil	2	nil	2 (for default)
1963	1	1	nil	1 (pending)	nil	nil
1964	2	1	1 (for default)	1	1	nil
1965	2	nil	2 (for default)	5 (2 pending)	3	nil
1966	2	1	1 (for default)	4 (pending)	nil	nil

1 Source: District Judge, Darjiling.

The following table, based on 1961 Census data, gives the percentages of persons having different marital status to the total population of the district according to each age-sex-group :

**MARITAL STATUS ACCORDING TO AGE-GROUPS :
DARJILING DISTRICT : 1961**

Age Group	Unmarried percentage of		Married percentage of		Widowed percentage of	
	Males to total male population	Females to total female population	Males to total male population	Females to total female population	Males to total male population	Females to total female population
All ages	57.3	53.8	38.1	38.7	3.7	6.4
0-9	27.7	32.1	—	—	—	—
10-14	11.4	11.7	0.0	0.3	0.0	0.0
15-19	7.9	5.7	0.8	3.3	0.0	0.0
20-39	9.3	3.6	21.8	25.5	0.8	1.0
40-49	0.4	0.2	7.9	5.5	0.7	1.2

It would be of interest to compare the above table with the one below, prepared from the Census data of 1901, for noting the changes that have taken place over this 60-year period.

**MARITAL STATUS ACCORDING TO AGE-GROUPS :
DARJILING DISTRICT : 1901**

Age Group	Unmarried percentage of		Married percentage of		Widowed percentage of	
	Males to total male population	Females to total female population	Males to total male population	Females to total female population	Males to total male population	Females to total female population
All ages	51.1	45.0	45.1	44.9	3.7	10.0
0-10	24.8	27.7	0.1	0.2	0.0	0.0
10-15	10.3	9.7	0.4	1.6	0.0	0.0
15-20	7.4	4.9	1.8	4.6	0.0	0.1
20-40	7.8	2.3	27.4	29.1	1.3	2.7
40-50	0.5	0.2	12.4	7.7	1.4	4.2

The preceding figures prove that between 1901 and 1961 there has been a significant upward movement of age at marriage both for males and females. In 1901, 1.8 per cent of males used to get married between 15 and 20 years while the corresponding figure in 1961 for the age-group 15-19 was only 0.8 per cent. 27.4 per cent of males were married between 20 and 40 years in 1901 while only 21.8 per cent of them were found married in 1961. Similarly, in 1901, 1.6 per cent of girls in the 10-15 year age-group was to be given in marriage whereas the corresponding figure for 1961 was only 0.3 per cent. In 1901, 29.1 per cent of the girls in the 20-40 age-group was married while in 1961 25.5 per cent of the girls of

that age-group became wives. Though the figures show an upward trend in the marriageable age of both sexes, the age-group pattern has remained basically the same. For instance, the practice of getting married in large numbers in the 20-40 age-group was there in 1961 as it was in 1901 for both males and females.

Marriage customs obtaining in the Terai are best illustrated by those prevailing among the Rajbansis, who still maintain some of the traditional practices, which are, however, being supplanted by those of the upper-caste Hindus.

AMONG THE
RAJBANSIS

"Some forms of companionate marriage where divorce can be effected without ado are still to be found amongst them. . . The practice of marrying elder brother's widow is not uncommon. . . The system of *Ghor-dzia* where a young man is received into a family with a view to being accepted as a son-in-law if the arrangement is suitable and in the meantime he works as an assistant to the prospective father-in-law, is common amongst the Rajbansis. In the alternative when the demanded bride-price cannot be paid the newcomer has to work under the prospective father-in-law to serve out a probationary period before he can claim to marry the girl. . . Another type of marriage found in the Terai is the *Chotro-dani*. A woman after marriage is not allowed by her guardians to go to her husband's house and in the meantime she is married elsewhere in lieu of some money. The first husband is paid some compensation and he renounces all claim over his wife. . . The consideration money ranges from Rs. 100 to Rs. 500. The divorce is automatic as no village court or a Panchayet is necessary to give a decision."¹

Polygamy is common but the payment of a bride-price is the rule. Sanyal observes that the bride price in Dārjiling Terai varies from three to five hundred rupees. It is on account of this custom that a guardian, when he has married off a girl, is won't to say that he has sold her. A virgin of Rajbansi community is called a *Phul* or *Apari*. When a woman is married for the second time, she is called a *Dodia* and when for the third time, a *Tetia*. While the bride price of a *Phul* is Rs. 400, that of a *Dodia* is, generally, Rs. 100 while a *Tetia* may fetch not more than Rs. 80 if she is very good looking and not burdened with more than two children.

The betrothal of a virgin is regarded by the Rajbansi community as a real marriage which is settled by the elders through a *Karoa* (match-maker) and always officiated by a priest. The ceremony includes tying of the marriage-crown (*Phul* or *Sahera*) on the heads of both the partners which is not done in other forms of marriage.

Phul Biha

¹ C. C. Sanyal—*op. cit.* pp. 88-100.

Pani-chhita and
Pani-sorpon

The *Pani-chhita* and *Pani-sorpon* are delayed forms of marriage which are accepted by the society in exceptional cases but are not generally favoured. These are to be found in the Darjiling Terai as also in certain places of neighbouring districts. When the bridegroom cannot pay the bride price, he requests the guardian of the girl to sprinkle some water with the twig of a mango tree on the heads of the pair. This being done, they are allowed to live like man and wife and have children although they are not regarded as properly married. This type of marriage may properly be termed as 'marriage with retrospective effect'.

Levirate marriages

The custom of marrying the wife of a deceased elder brother is found in Jalpaiguri and Darjiling Terai. It is accepted by society as legal and consists of a simple *Pani-chhita* ceremony attended by community feeding. Educated Rajbansis have rejected this form of marriage now.

Ghar Son-dhani

Ghar Sondhani may be called a marriage by intrusion. When a man and a woman are willing to marry without the consent of their guardians the woman, by previous arrangements, suddenly enters the inner apartments of the house of the man one day and starts performing household duties. Shortly, she is accepted as a wife and a community feeding is the only ceremony performed. When a married woman goes through such a form of marriage, the second husband is required to pay a suitable compensation to the first to secure an automatic divorce. In most cases, however, widows are brides in this form of marriage which, although accepted by society, is looked down upon by it. According to prevailing social customs, children of such marriages can inherit their father's properties.

Widow re-marriage

Widow re-marriage is permitted in Rajbansi society without any special ceremony. After the bride price has been fixed, which may vary from twenty to two hundred rupees, the bridegroom, accompanied by his friends, visits the house of the bride on a fixed night when they are fed and the party then returns with the bride to the house of the groom. In a day or two a community feeding is arranged when the bride distributes food to the invitees and is thus admitted into society as a properly married wife. "A widow having several children may not take all of them with her to the new husband's house. The children of the former husband call the new father as *Dhokor-bap* and the children are *Dhokor-beta* and *Dhokor-beti*. The new wife is called *Pachua*."

Parkhetri-pachua

A widow having none to look after her may, with or without^t the assistance of elders, choose a partner and live with him as man and wife. A simple *pani-chhita* ceremony attended by a community feeding ratifies such a union. The wife is then called a *Dhemni*. Children born of such a union are accepted as legitimate by society.

A widow needing some one to look after her properties, may be approached by a fortune-seeker who places a pot of mustard oil at the door and strikes the roof above thrice with a stick before he enters the house of the woman and is accepted as the husband. This is a form of companionate marriage which entitles the woman to turn out her partner any time she likes for which no divorce is necessary. Such co-habitation is not regarded by society as legal and children born of such union are neither legitimate nor can they inherit ancestral property. The man is called a *Dangua* and the woman a *Danguanipachua*. A *Dangua* has no social status and is looked down upon by society.

Dangua

When a widow becomes pregnant by a man whose identity is not in doubt, society forces the culprit to marry her and the union is called a *Nika* or *Gao-gachh*. Feeding the friends and relatives of both the parties, the only ceremony observed on such an occasion, ratifies the union which, however, is not held in general esteem. When the culprit cannot be traced, another man agreeing to marry the widow for a consideration, takes her and the union is called *Gachh-khara-hawa*. A son born after the marriage, although of an untraced father, is admitted to the *gotra* of the husband and can inherit his property. But the other children of the widow born before the second marriage do not inherit property but succeeds to the *gotra* of the foster father. A virgin under similar circumstances is also treated in the same manner.

Gao-gachh

It has been a custom amongst the landed aristocracy and affluent people of the Rajbansi community to keep an unmarried girl without marrying her, which is not seriously objected to by society. The girl so kept is called *Koina-patra*. Children of such unions cannot inherit property of the keeper unless they are made legitimate by a subsequent marriage solemnized through *Pani-chhita* or *Pani-sarpan* ceremonies.

Koina patra

...Amongst the Rajbansis divorce is a simple affair. There is no question of maintenance allowance after divorce... Marriage and divorce both being very easy the society goes on smoothly and is not overburdened with complications as in caste-Hindu or in some other modern societies. Amongst the educated Rajbansis divorce is a rare occurrence.

Divorce

Lepchas are normally monogamous. Polygamy is not unknown among them but polyandry seems to be practically extinct these days. Marriages are usually negotiated between the elders of the two parties although a few love marriages are now taking place. Marital unions between Lepchas and Nepalis are not infrequent when elaborate marriage rites are dispensed with and the community accepts such marriages. But bride price is demanded if a non-Lepcha marries a Lepcha girl with her parents' consent.

MARRIAGE AMONG
THE LEPCHAS

Widow re-marriage

"Widow marriage was prevalent in the old days but the widow had to marry the younger brother (junior levirate) of her late husband whatever would be his age. Widow marriage was strictly compulsory and the societal behaviour was in favour of this marriage. If the widow happened to marry an outsider, the brother-in-law usually used to keep the children and claimed the repayment of bride price. In the absence of younger brother preference was given to a junior cousin of her late husband. But under no circumstances she was allowed to marry the elder brother of her husband (senior levirate). If no unmarried male member could be found in the family then the widow was ceremonially returned to her father along with a milch cow and half of the property of her late husband. This ceremony was called 'Angap'. After this she could marry an outsider without being punished by the society or by returning the bride price, etc. This was also applied in the case of a widower. He could remarry but the bride must be a younger sister-in-law or a younger member of his wife's family (in the absence of a sister-in-law). These customs are not in vogue at present. Now-a-days a widow or widower can marry any of their choice but this choice is restricted within their own society. Societal norm has also changed and widow marriage is the personal choice of an individual."¹

Lepcha marriages are exogamous with restrictions on unions between members of the same clan and between cross or parallel cousins but are permitted between cousins having a specified degree of family remoteness.

The payment of a bride price has lost its rigours in these days of economic hardship. Besides the presentation of a bull and a pig, a groom may now pay the money in instalments. This costly system prevents many a groom from marrying young. Although not very popular, Lepcha marriages are sometimes solemnised 'on credit' when the girl remains in her own family with the husband living with her there till he can pay the bride price and take her home. Horoscopes are commonly consulted to find out if a union is destined to be prosperous or otherwise. On the marital plane, the husband enjoys a superior status though the wife is consulted about all family matters.

Divorce

"The incidence of occurrence of divorce in Lepcha society is very limited and if a married couple quarrel and cannot agree to make up, arbitrators (generally village elders) try to adjust their differences. If, however, repeated attempts to adjust the differences fail then the divorce is effected with the concurrence of the Lama who solemnized the marriage of the pair. The wife returns to her father's house and the husband pays some compensation

¹ A. K. Das and S. K. Banerjee—*The Lepchas of Darjeeling District*. Calcutta, 1962. pp. 80-7.

to her parents. Where adultery is proved on the part of the wife the husband has a right to divorce her without paying compensation to her parents and also takes away the ornaments and garments from her, but if adultery is on the part of the husband then the wife has a right to divorce the husband with due compensation from him. Divorced men or women can re-marry according to their own choice. If a woman is childless, then the husband is allowed to marry a second time (usually a younger sister of the bride) but they do not divorce each other. After marriage the two wives may live in the same house and the authority of the first wife is more than that of the second.”¹

The Nepali higher castes like the Brahmins, the Thakurs and the Chhetris generally follow the marriage customs of high-caste north Indian Hindus. The Chhetris are largely a homogeneous, endogamous caste which has allowed accretion to its main body in several ways. Many Brahmins have married Chhetri girls and the offsprings of such unions are known as Khatris of Khatri-Chhetris and bear the same clan-name as their Brahmin father and succeed to the father's status. When Chhetri men were debarred from marrying Brahmin women, many of them formed unions with women of lower ethnic groups like the Newars, Gurungs, Magars and Tamangs and the issues were regarded as Chhetris but not as equal in status to the offspring from unions with Chhetri girls. They bore the father's clan-name, but did not enjoy commensality with the pure-bred members of their fathers' kin-group. The marital tolerance of Chhetri society is also evident from the fact that although it does not approve of divorce, many regular marriages break up when the wife either returns to her father or takes another man with not much of serious disapproval from the community.

MARRIAGE AMONG THE NEPALIS

Khatris

Various types of residential houses are seen in the rural areas of the hill subdivisions. Cross-cultural influences have conditioned the techniques of house-building in the district. The homes of the poorest people follow the archaic Lepcha modes of hut construction. While the homes of the well-to-do Bhutias speak of Tibetan influence, the affluent Newars still try to retain something of the traditional Newari architecture. The Anglo-Indian *bungalow* architecture, on the other hand, is favoured by well-off educated people and a great majority of the residential houses in the urban areas are of this type.

DWELLING HOUSES

Houses of the poor peasants and plantation labourers are invariably rectangular structures with practically no projecting parts. Sometimes, the houses of those who are little better off among them, have a small covered verandah in front. When

¹ *loc. cit.*

houses are built on hill slopes, several leg-like stilts support them. More commonly, layers of dressed stones serve as plinths.

Walls are built of various materials with an emphasis on those that are locally available. In the poorest homes bamboo strips, woven into mats, serve the purpose with an occasional mud-plaster over them. Sometimes reeds or split bamboos are vertically placed side by side and held together by horizontal bamboo-belts to serve as walls. No windows are usually found in this type of houses. Homes of slightly better-off people have wooden walls built of planks or split-logs the bottoms of which are heavily plastered with mud or fortified by stones covered over with clay. Windows, if they are found in such houses at all, are few and small. Homes of affluent people in the big market-villages have brick walls like those found in the Newar villages in Nepal, or plank walls plastered over with clay. Well-to-do homes both in the rural and urban areas display walls of planks held together by frames—a technique adopted from the Anglo-Indian bungalows

Roofs are almost invariably sloping with two rectangular pieces descending in opposite directions from the linear joint at the top. Sometimes two more sloping parts cover the sides of a house. The archaic Lepcha homes used to have conical roofs with circular vases ; the poorest of the Lepchas keep to this practice even now.

The roofs of the houses of the poorer section of the people are usually made of straw, and occasionally, of dressed stone or pottery tiles held together by split-bamboo or wooden frames. Corrugated iron sheets are also used as a roofing material by those who can afford them.

Excepting the fact that more brick-built and less timber-built houses are found both in the rural and urban areas in the plains than in the hill portion of the district, the building materials are the same everywhere. But the use of bamboo as a building material is much more extensive in the Siliguri subdivision than elsewhere in the district. Another characteristic of the rural houses in that subdivision is that many of them stand on stilts or when they are brick-built have high plinths. The thatches also meet each other along a horizontal and not curvilinear line as is common in the huts of the *Radh* area of West Bengal. But this peculiarity also obtains in the hill subdivisions. Modern brick houses mostly have flat roofs throughout the district.

The following tables prepared from data collected through a sample survey of 20 per cent of dwelling houses in the district conducted during the 1961 Census would indicate the relative preference for building materials used there.

**PERCENTAGE DISTRIBUTION OF DWELLING HOUSES ACCORDING TO ROOF MATERIALS IN URBAN AND RURAL AREAS
IN THE HILLS AND PLAINS OF DARJILING DISTRICT : 1961**

(Based on 20% sample households)

Roofing Materials (Percentage of total households)						
District	Rural	Total No. of dwellings	Grass, leaves, reeds, thatch, wood or bamboo	Tiles, slates, shingles	Corrugated iron, zinc or other metal sheets	Concrete and stone slabs
Darjiling district	R	24,846	65.98	0.08	31.43	0.30
	U	6,546	14.56	0.44	69.51	11.50
Hilltracts	R	14,370	59.21	—	38.77	0.19
	U	3,493	14.00	0.26	68.74	16.00
Plains	R	10,476	75.28	0.20	21.35	0.45
	U	3,053	15.20	0.66	70.39	6.35

**PERCENTAGE DISTRIBUTION OF DWELLING HOUSES ACCORDING TO WALL MATERIALS IN URBAN AND RURAL AREAS
IN THE HILLS AND PLAINS OF DARJILING DISTRICT : 1961**

(Based on 20% sample households)

DARJILING									
District		Total No. of dwellings	Grass, leaves, reeds or bamboo	Timber	Mud	Wall Materials (Percentage of total households)			
						Burnt bricks	Corrugated iron or other metal sheets	Stone	Cement concrete
Hilltracts Plains	R	19,182	79.77	27.86	4.41	4.27	2.53	7.90	2.11
	U	5,945	16.85	37.70	1.14	15.58	16.25	4.63	16.77
Hilltracts	R	12,695	51.49	37.06	4.62	2.22	2.44	11.92	2.95
	U	3,421	8.48	34.20	1.61	1.70	19.29	8.04	28.33
Plains	R	6,487	135.12	9.85	3.41	8.29	2.71	0.05	0.45
	U	2,524	28.21	42.43	0.52	34.39	12.12	—	1.11

No survey data are available about furniture used by different ethnic groups and by people at different economic levels in the district. It may, however, be broadly stated that they are not materially different from those possessed by corresponding groups elsewhere in the State.

Furniture

The agricultural implements in common use have been dealt with in Chapter III and need not be discussed here. Once when the Lepchas were *Jhum* cultivators, they used to supplement their agricultural produce with fishing, hunting and fruit gathering which they still keep up. Basket traps (*vir tangsit*) used by them for catching fish are made of cane or split bamboo with a net at the mouth. Nets (*sringli*) are also used which they make themselves. Hunting is a community sport in which participants armed with spears, bows (*shu*) and arrows (*chong*) invade the neighbouring forests. Except the bamboo-mat weavers, carpenters and handloom artisans, the Lepchas have few craftsmen among them. Bamboo and wood are extensively used for fabricating tools of production and articles of direct use. Traditional weaving is practised by them on handlooms which appear to have been inherited from the Tibetan Bhutias or the Newars. The distinctive designs and colour schemes of Lepcha textiles leave no room for doubt that it is one of their old crafts.

Tools of
production

Among the Nepali ethnic groups the Kamis specialize in black-smithy while the caste occupations of the Sarkis and Damais are leatherwork and tailoring respectively. Among the Newars, there are distinct craft groups with traditional background. Thus the Jayapoos spin yarn, weave textiles and make wooden objects while the Manandhars press oil and potters make clay utensils, bricks and tiles.

सयमेव जयते

The Rajbansi weavers work on traditional looms similar to those in vogue in Manipur. They use cotton yarn for fabricating *phota* (women's wear), *gamchha* (napkin) and *gilap* (wrapper) and jute yarn for *dhokra*.

The hill people do not have any traditional wheeled transport. Over the ages, men and animals have done all haulage work which is largely the practice even today. The Rajbansis, however, use a bamboo-built cart with two wooden wheels and drawn by two bullocks. Bamboo rafts and canoes made from *Simul* (Bombax) tree trunks are in common use in the plains.

The poorer people still use burnt-clay utensils for cooking, but seldom use them for taking food from. While some Lepchas still use wooden platters and spoons for eating their food, the majority of Lepchas, Nepalis and Bhutias use aluminium or enamelled steel utensils these days for the same purpose. Well-to-do Nepalis, especially the Brahmins, Chhetris, Thakuris and

Utensils

Newars, use utensils made of copper, brass and bell-metal. Ritual utensils in Buddhist monasteries and Hindu temples are usually of copper.

Dress

The working class males, irrespective of their ethnic affiliations, usually wear western type trousers, shirts, woollen pullovers or sweaters and various types of jackets made of wool or leather. They also use mufflers, hand gloves, socks and shoes. The traditional garments are common among the poorer sections as also the affluent farmers, traders and elderly people. On the occasion of religious festivals, however, donning of traditional costumes is a part of the ritual to many. The traditional dress of the Newari male has been accepted by all the ethnic groups of Nepalese origin as their proper ceremonial dress. "The male upper garment called *la(n)* in Newari is the same as *Labeda* (the upper garment worn by a Gorkha male). The lower garment is called *Suruwa*. It is a tight trousers, a sort of modification of the Indian tight pyjamas which goes somewhat by the same name. The only difference between these two is that the former is loose fitting whereas the latter is tight. Moreover the Nepalese *Suruwa* is very loose in the region of the buttocks. . . The *Labeda* or *la(n)* is kept in position by a fastening arrangement on one side of the chest by strings. The richer classes wear, in addition, coat and waist coat. . . The male head-dress is, however, of many varieties and all are round-shaped. All of these are either called *topi* in Nepali or *tapali* in Newari. Of these, the *bhatgawle-tapali* is typical in its material as well as in its black colour. . . Another variety is a white one of similar shape and make, except for the material used. It is made of muslin against the background of printed cloth."¹

The traditional dress of the Newar women once served as the model for Gorkha and Kiranti women. But modern Nepali women of well-to-do households, especially in the urban areas, are keen to adopt Indian and Anglo-Indian dresses. The age-old costume of a Newar lady consists of a *parsi* (Indian sari), *Misa-la(n)* (long-sleeved blouse reaching up to the waist), *Ga(dupatta* or shawl) and *jani* (cloth belt) which is wider and longer than the one used by the male. The *parsi* is worn in a manner to form numerous pleats in front while the other end instead of being thrown over the shoulder across the breasts, is gathered round the waist and tucked in. Petticoats, bodices and brassieres are not usually worn by rural women but are much in vogue among well-to-do women of the urban areas. Newar women do not use any head-dress but Gurung and Kiranti women occasionally don turbans. Married Brahmin, Chhetri, Thakuri and Sannyasi women, when they wear a *parsi*, pass one end of it over the head in the manner worn by married Hindu women of North India.

¹ G. S. Nepali—*op. cit.* pp. 64-5.

Among the Nepalese males and young girls, a definite trend towards western and North Indian dresses is noticeable.

The traditional Lepcha male dress is called *dom-pra* and the female dress *dom-dyam*. The main component of the former is the *pagi* which is a long and heavy cotton vest worn round the waist to form a skirt reaching the knees while the remaining portion of it is taken over the chest and thrown round one shoulder and gathered over the other keeping the arms free. In addition the Lepcha males wear long-sleeved or sleeveless high-necked Tibetan blouse-shirts to cover the upper portion of the body. The Lepcha male head-gear is known as *thaktop* which is a wide-rimmed and long-topped hat of dried bamboo-leaves woven on a split-bamboo frame. While working in the fields the Lepcha males wear a *sambu*—a conical hat made of bamboo-mat. The female Lepcha dress consists of a very long-sleeved blouse called the *tugo* (the loose sleeves are rolled up as the occasion demands) and a heavy textile petticoat with a slender waist and a very wide bottom. Another type of petticoat-skirt, shorter in length but not so wide at the bottom, is called *namrik*.

The traditional male dress of the Lepchas is normally confined to the elderly and the very poor although on religious occasions it is worn by many. Their working dress generally consists of shorts or trousers, shirts, woollen sweaters and jackets and leather boots. The women show a greater proneness to don traditional costumes. But the younger and unmarried girls from well-to-do families, especially in the urban areas, are taking more and more to western dress or the Punjabi style *salwar* and *kameez*.

The additional Tibetan Bhutia, Sikkimese Bhutia and Bhutane e Bhutia dressess are all basically of Tibetan origin and are the most colourful of their kind in the Darjiling hills. They consist primarily of a big dressing-gown type coat called *bakkhu* which serves both as an upper and a lower garment for men and women alike. The very long sleeves are rolled up and down as the occasion demands (Sleeveless *bakkhus* are also seen). When a waist band is used, the long lapels of the *bakkhu* are placed one above the other to form a double protection in front. It is made of wool, silk or velvet with woollen lining inside. A *hanju* (a long-sleeved and high-necked apparel) is also worn by men and women beneath a *bakkhu*. Besides these garments, married women wear an apron with multi-coloured horizontal stripes called *pangden* which is tucked in at the waist and allowed to hang free falling a little below the knees. The traditional Bhutia head-gear consists of woollen and fur caps with projected parts to protect the ears from the biting cold. Wool and fur also go into the making of Bhutia boots which have coir-rope soles. Yak skin boots with woollen tops and lining are also used.

The Rajbansi men usually wear a dhoti in the North Indian style. Among the poorer classes, the upper part of the body is

not always covered but shirts are now coming into use among those who can afford them. The traditional dress of the Rajbansi women consists of an unsewn piece of cloth called *phota* which approximates a sari in length and breadth. It is wrapped round the body below the armpits thus covering the torso and descending to the calf muscles. The arms and shoulders are kept bare. On festive occasions or when travelling, the Rajbansi women wear a *gilap* or wrapper round their shoulders. Women of well-to-do families, especially in the urban areas, are taking more and more to saris and blouses, wearing them in the Bengali-Hindu manner.

Jewellery

Silver and locally available precious stones are prized most by hill women of the district for the making of jewellery. Gold is also used, but because of its high price is mostly beyond the reach of the poorer classes. While the Nepali Brahmin, Chhetri, Thakuri and Sannyasi women prefer light ornaments, the Kirati, Gurung, Rai, Limbu and Mangar women cherish heavy and ornate pieces. Among other ethnic groups, the Bhutanese Bhutia, Nepalese Bhutia and Sherpa women like substantial ones while their sisters of the Tibetan and Sikkimese Bhutia stock prefer to have them light. Stone-set jewellery is appreciated more by Bhutia, Kirati, Gurung and Mangar belles than Nepali Brahmin, Chhetri, Thakuri and Newar ones.

Among the head ornaments, two used by Newar women at the time of marriage, namely, *sinduri* and *sirbandi*, are of great ritual significance. The nose-ornament called *dhungri* is very common. Of the various types of ear decoration, the *gadwari* and *cheptisoon* are extremely popular. Necklaces are of several kinds, among which *wo-sikha* having a ritual significance, *kantha*, and *thimra-mala* are prized by many. *Tilari*, another neck ornament worn only by married Brahmin, Chhetri, Thakuri, Sannyasi, Mangar, Gurung and Rai women does not find much favour with the Newar women. The bracelets are many and varied. Among the ankle ornaments, *kali*, the most important, is worn life-long by Newar matrons after the birth of their first child.

Lepcha women wear a kind of silver loop in their ears, which they call Nemong. "Varieties of necklaces made of cornelian, amber, etc., with curious silver and golden charm-boxes or amulets are used by them. The women wear a typical necklace known as *kow* and its locket is known as *zu*. Necklace made of stone or *mata* is universally used by Lepcha women and is known as *tho*. A simple type of gold or silver necklace known as *leyap* is used by a majority of women. Some ornaments contain little idols, charms, written prayers, bones, hair, etc., of some lama. . . It may be mentioned here that most of the ornaments are only used on a special socio-religious occasion but *leyap* is an ornament of ordinary daily use."¹

¹ A. K. Das and S. K. Banerjee—*op. cit.* p. 30.

The Rajbansi women show a preference for heavy, decorative, inlaid or embossed silver and gold jewellery. Among their head ornaments *sitha-pati*, a silver chain with a pendant placed at the parting of the hair, and *sed-bou* are important. *Onti* (or *enti*) is a plain round earring worn on the ear-lobe and *machhia pat* another kind of earring with a pendant is worn on the upper part of the ear. Other ear ornaments in common use among them are *gudzi*, *chaki* and *makiri*. Nose ornaments are of several kinds. As many as thirteen varieties of neck ornaments of gold and silver are in vogue among Rajbansi women. They call their wrist ornaments *kharu* and *churi*, which may be of five different kinds. A married Rajbansi woman wears bracelets called *sankha-kharu* while her first husband lives, but discards them when he dies or when she marries again. Three types of arm-bands and four kinds of heavy silver anklets are used by Rajbansi women.

Rice is the staple food of the Bengali Hindus and Muslims, Rajbansis, Meches, Oraons, Mundas and Santals of the district. Immigrants from North India residing in the district for long; Nepali Brahmins, Newars, Chhetris, Thakuris and Sannyasis as also Kiratas; Tibetans, Bhutanese Bhutias and Lepchas are all now rice-eaters. The district grows most of its rice in the Siliguri subdivision alone, there being limited scope for its cultivation in the hills on account of the terraced fields and climatic conditions, which are better suited to the raising of maize and millet. Poorer people, therefore, have to depend largely on the latter crops, which are cheaper than rice. Mangars, Gurungs and Kiratis among the people of Nepalese extraction, as well as Sikkimese, Bhutanese Bhutias and Lepchas take maize as the second important food. Millet, locally called *marrua* and *korro*, is the third important food and, quantitatively, the second important crop produced in the hill subdivisions of the district. Poor Sikkimese and Bhutanese Bhutias, Lepchas, Tamangs and Khambus supplement rice and maize by millet. Millet corn is usually turned into flour, from which bread is prepared. Buck-wheat, an inferior kind of millet locally called *phapar*, is produced in small quantities in the hills. Being the cheapest of all the cereals, it is mostly consumed by the poorest sections of the people, who also eat tapioca roots called *simaltaru*, a kind of yam called *ghattaru*, and squash-roots. *Mash-kalai* and *arhar* are the most important pulses grown. Among green vegetables, squashes, beans, potatoes, peas, tomatoes, cabbages, cauliflowers, carrots, etc., are grown extensively in the hill areas of the district, but most of the produce is exported to other districts. The same observation holds for oranges also. Mushrooms are consumed by all hillmen while bamboo shoots are a delicacy among the Lepchas.

Food

Pork is the most consumed meat in the Darjiling hills. Except the Brahmins, Chhetris, Thakuris, Sannyasis and Newars, all other Nepali ethnic groups take pork, while Bhutias and Lepchas have a special liking for it. The latter two communities

also eat beef—abhorred by Nepali, Bengali and north Indian Hindus alike. Dried meat is consumed by almost all hillmen. Tamangs, Kirantis and even Newars among the Nepalis as also Bhutias and Lepchas take highly-spiced raw meat. Dried fish imported from the plains is sought after even in the rural markets.

Drinks

There is hardly any taboo against drinking among the Nepalis, Bhutias and Lepchas. Spirituous liquors have also their ritual use among most of the hill people. Alcoholic drinks keep them warm in the biting cold. Among the drinks, the most popular is the millet beer called *tongba* which is mildly alcoholic. Rice beer is also consumed in large quantities. Liquors are known by the generic term *jad* and various kinds of it are prepared from maize and tapioca as well as squash and plantain roots.

Social Leadership

The traditional tribal or caste councils, which existed among the Rais, Gurungs and Limbus in Nepal and Lepchas in Sikkim, no longer wield, to the same extent, the power and influence they once enjoyed. Yet, in respect of intra-group observance of traditional rules and customs, their authority still counts, since economic position, age, hereditary or acquired ritual status and education have always been important pre-requisites for the membership of these councils.

Among the Buddhists,—that is, among the Tibetans, Sikkimese, Bhutanese Bhutias, Lepchas and Tamangs,—the influence of the lamas is enormous, varying according to their status in the religious hierarchy. Such influence is, however, limited mainly to ensuring a correct moral behaviour and the observance of the traditional religious practices by the laity.

Economic status

In the plantations, the broad classes are the white-collar workers, who run the management and identify themselves with the interests of the owners, and the wage-earning labourers. *Thikadar-sardars*, who supervise teams of the latter, wield considerable influence on them. They generally come from the group which was initially instrumental in the recruitment of field-workers in the plantations, and thus enjoy a traditional and somewhat hereditary leadership buttressed further by kinship and caste ties.

Artisans, although mostly self-employed, are largely under the thumb of the *mahajans* and big traders.

The following two tables, prepared from 1961 Census data, indicate the class position, especially in the rural agrarian sector and provide quantitative information on household industries in the rural and urban areas of the district.

**PERCENTAGE OF HOUSEHOLDS ENGAGED IN CULTIVATION CLASSIFIED BY INTEREST IN LAND AND
SIZE OF LAND CULTIVATED IN RURAL AND URBAN AREAS OF DARJILING DISTRICT : 1961 (Contd.)**

(Based on 20% sample)

Interest in land cultivated	No. of cultivating households	Percentage of households engaged in cultivation by size of land in acres											Un-specified 50 +
		Less than 1	1.0-2.4	2.5-4.9	5.0-7.4	7.5-9.9	10.0-12.4	12.5-14.9	15.0-29.9	30.0-49.9			
Rural Areas													
DARJILING DISTRICT													
Total	12,072	37.67	22.58	16.53	11.41	3.68	3.04	0.90	2.37	0.31	0.22	1.29	
(a)	5,379	18.40	27.76	20.06	15.30	5.17	4.63	1.52	4.03	0.45	0.32	2.36	
(b)	5,964	59.51	19.85	11.94	5.53	1.32	0.70	0.10	0.40	0.07	0.12	0.45	
(c)	729	1.23	6.72	27.98	30.73	11.93	10.43	2.88	6.17	1.37	0.27	0.27	
HILL-TRACTS													
Total	8,534	49.02	23.76	11.87	7.69	2.36	1.93	0.68	1.37	0.20	0.21	0.91	
(a)	4,016	23.83	31.50	18.20	13.25	3.98	3.41	1.27	2.39	0.22	0.27	1.67	
(b)	4,264	75.47	17.24	4.67	1.34	0.40	0.16	0.05	0.16	0.09	0.16	0.26	
(c)	254	3.15	11.02	32.68	26.38	9.45	8.27	1.97	5.51	1.57	—	—	

**PERCENTAGE OF HOUSEHOLDS ENGAGED IN CULTIVATION CLASSIFIED BY INTEREST IN LAND AND
SIZE OF LAND CULTIVATED IN RUKAL AND URBAN AREAS OF DARJILING DISTRICT : 1961 (Concl'd.)**

(Based on 20% sample)

Interest in land cultivated	No. of cultivating households	Percentage of households engaged in cultivation by size of land in acres										Un-specified
		Less than 1	1.0-2.4	2.5-4.9	5.0-7.4	7.5-9.9	10.0-12.4	12.5-14.9	15.0-29.9	30.0-49.9	50 +	
PLAINS												
Total	3,538	10.32	19.73	27.76	20.38	6.87	5.71	1.44	4.78	0.59	0.23	2.20
(a)	1,363	2.42	16.73	25.53	21.35	8.66	8.22	2.27	8.88	1.01	0.44	4.40
(b)	1,700	19.47	26.41	30.18	16.06	3.65	2.06	0.24	1.00	—	—	0.94
(c)	475	0.21	4.42	25.47	33.05	13.26	11.58	3.37	6.53	1.26	0.42	0.42
Urban Areas												
DARJILING DISTRICT												
Total	189	32.28	42.33	7.94	7.94	2.65	2.12	1.59	2.65	—	—	0.53
(a)	148	27.70	44.59	1.11	8.78	2.70	2.70	2.03	2.70	—	—	0.68
(b)	38	52.63	36.84	2.63	2.63	2.63	—	—	2.63	—	—	—
(c)	3	—	—	66.67	33.33	—	—	—	—	—	—	—

(a) Owned or held from Government.

(b) Held from private persons or institutions for payment in money, kind or share.

(c) Partly held from Government and partly from private persons for payment in money, kind or share.

**PERCENTAGE OF HOUSEHOLDS ENGAGED ONLY IN HOUSEHOLD INDUSTRY CLASSIFIED BY PRINCIPAL
HOUSEHOLD INDUSTRY IN ALL AREAS OF DARJILING DISTRICT : 1961 (contd.)**

(Based on 20% sample)

Household Industry (major group only)	Rural Urban	Total No. of house- holds	Percentage of households engaged in household industry according to the number of persons engaged					
			1 person	2 persons	3-4 persons	6-10 persons	More than 10 persons	Unspeci- fied
ALL INDUSTRIES	R U	193 155	56.48 56.13	27.98 21.29	11.40 16.13	1.04 5.16	0.52 1.29	2.59 —
Agriculture, live stock, forestry, fishing and hunting	R U	13 3	38.46 33.33	23.08 33.33	30.77 33.33	7.69 —	— —	— —
Livestock and hunting	R U	13 3	38.46 33.33	23.08 33.33	30.77 33.33	7.69 —	— —	— —
Manufacturing	R U	180 152	57.78 56.58	28.33 21.05	10.00 15.79	0.56 5.26	0.56 1.32	2.76 —
Foodstuffs	R U	25 20	40.00 40.00	28.00 10.00	20.00 35.00	4.00 10.00	4.00 5.00	4.00 —
Tobacco products	R U	2 3	100.00 —	— 66.67	— —	— 33.33	— —	— —
Textile—cotton	R U	6 3	100.00 66.67	— 33.33	— —	— —	— —	— —
Textile—jute	R U	1 —	100.00 —	— —	— —	— —	— —	— —

PERCENTAGE OF HOUSEHOLDS ENGAGED ONLY IN HOUSEHOLD INDUSTRY CLASSIFIED BY PRINCIPAL HOUSEHOLD INDUSTRY IN ALL AREAS OF DARJILING DISTRICT : 1961 (Contd.)

(Based on 20% sample)

Household Industry (major group only)	Rural Urban	Total No. of house- holds	Percentage of households engaged in household industry according to the number of persons engaged					Unspeci- fied
			1 person	2 persons	3-4 persons	6-10 persons	More than 10 persons	
ALL INDUSTRIES								
Textile—wool	R U	1 5	100.00 60.00	— 40.00	— —	— —	— —	— —
Textile—Miscellaneous	R U	62 44	64.52 56.82	29.03 22.73	6.45 13.64	— 4.55	— 2.27	— —
Manufacture of wood and wooden products	R U	24 15	37.50 66.67	37.50 —	16.67 20.00	— 13.33	— —	8.33 —
Paper and paper products	R U	1 —	100.00 —	— —	— —	— —	— —	— —
Printing and publishing	R U	1 —	— —	— 100.00	— —	— —	— —	— —
Leather and leather products	R U	15 26	53.33 61.54	26.67 19.23	13.33 19.23	— —	— —	6.67 —
Rubber, petroleum and coal products	R U	1 —	— —	— —	— 100.00	— —	— —	— —
Non-metallic mineral products other than petroleum and coal	R U	4 2	— 50.00	75.00 50.00	25.00 —	— —	— —	— —
Basic metal and their products except machinery and transport equipment	R U	19 19	73.68 57.89	15.79 26.32	10.53 10.53	— 5.53	— —	— —
Transport equipment	R U	2 —	— —	100.00 —	— —	— —	— —	— —
Miscellaneous manu- facturing industries	R U	18 13	66.67 76.92	27.78 23.08	— —	— —	— —	5.56 —

CHAPTER III

AGRICULTURE AND IRRIGATION

Land Reclamation and Utilization

The physical configuration of the district makes agricultural conditions extremely diverse. The district may be broadly divided into two parts: the mountainous region to the north forming its greater part and the alluvial plain to the south known as the *Terai*. Altitudes vary from 300 feet above sea-level in the plains to about 12,000 feet in the hills. While the *Terai* contains stretches of alluvial soil admirably suited for rice cultivation, there are also poor sandy tracts which cannot be brought under the plough. Nothing except scrub jungle grows on the stony inclines, but the land is of good fertility on the gentler slopes and in the upper valleys. As Dash puts it: "Altitude and aspect have important effects on agriculture. No part of the district lies above tree-level, but no crops are grown above 9,500 feet above sea-level owing to the cold. Potatoes can be grown up to that height, but the upper limits for rice, maize and millet are much lower. Tea does not grow above 7,000 feet. Below about 2,500 feet much of the ground is steep and unsuitable for cultivation: the temperatures here are too high to suit many of the crops growing in the colder altitudes and the result is that between 1,000 and 2,500 feet there is comparatively little cultivation and most of the area is under forest."¹

The following table indicates the land utilization pattern in the district between 1960-61 and 1962-63.

LAND UTILIZATION IN DARJILING DISTRICT
1960-61 TO 1962-63
(Area in acres)

	1960-61	1961-62	1962-63
Total area of the district	7,67,800	7,67,800	7,67,800
Area under forest	2,92,400	2,92,400	2,92,400
Area not available for cultivation	1,80,100	1,80,100	1,80,100
Cultivable wastes excluding current fallow	41,700	38,400	39,500
Current fallow	11,400	5,700	9,000
Net area sown	2,42,200	2,51,200	2,46,700
Area sown more than once	38,700	39,500	38,100
Total cropped area	2,80,900	2,90,700	2,84,800

¹ A. J. Dash—*Bengal District Gazetteers ; Darjeeling*, Calcutta, 1947, p. 99.

The area of cultivable wastes has remained more or less constant during the period under review. They are scattered throughout the district in blocks of various sizes. Though recent statistics are not available, an idea of the extent of these blocks may be had from relevant data collected in 1944-45, which placed their total area at 52,741 acres.¹ There has not been any appreciable change during the decades that have followed. In fact, expansion of cultivation in the district was rapid in the middle of the last century, but now there are few areas where land could be cultivated economically. Owing to adverse physical conditions obtaining in the district, namely, steep mountains, heavy rainfall, landslips, etc., cultivation is carried on under the greatest difficulties and at a considerable input of labour, chiefly manual. Some portions of these waste lands, mainly located in the police-stations of Rangli-Rangliot (2,800 acres), Garubathan (1,692 acres), Phansidewa (1,304 acres), Kharibari (1,762 acres) and Siliguri (1,698 acres), can, however, be brought under cultivation through adequate financing. Difficulties in the way of their recovery in most cases can be attributed to steep slopes, rocky land and lack of irrigation facilities.

Clearing of
forests and
recovery of swamp

While forests cover appreciable areas of the district, there are hardly any swamps which can be profitably utilized for agricultural purposes after recovery. The forests of the district are almost invariably 'reserved' by the Forest Department except a few square miles in the Kalimpong subdivision, which are controlled by the Deputy Commissioner. There are also large areas under tea and cinchona. The distribution of land between forest, cinchona, tea and other cultivation varies at different parts of the district, and while the forest area under the Khas Mahal administration is supposed to be diminishing since 1907, considerable areas under tea-leases are utilized by lease-holders for cultivation of various non-plantation crops. Formerly, the forest was very dense and wet and, consequently, very unhealthy. Though many of the forests are still preserved, a good portion has been cleared for tea plantations and general cultivation. There is no large marsh or *bil* in the Terai area.

Soil erosion

Soil erosion is a regular feature in the district, mainly due to deforestation, defective cultivation practices and the cropping pattern. In the hilly areas of the north, erosion occurs mainly in the form of landslides. The rivers are also quite active in eroding the hill sides. Rapid afforestation, terrace cultivation, treatment of gullies and *jhoras* and introduction of suitable cropping programme are some of the steps suggested for combating soil erosion effectively. While landslips in this district cannot be entirely prevented, they can at least be checked to a certain extent by proper protective measures like turfing and afforestation of

¹ Source : *Census 1951 : District Hand Book : Darjeeling*. Calcutta, 1953.

bare slopes, well-directed and efficient drainage, reduction of the steepness of hillslopes by terracing, outward protection of the soil-cap by means of revetments and buttresses, protection of the harder rock outcrops, systematic quarrying in hillsides and control of the erosive action of streams and waterfalls. As regards river erosion, the bed of the Mechi river, for instance, was filled and its course deflected by a huge volume of detritus originating in a great landslide in Nepal some years ago. From time to time small tracts of land are handed over to the Forest Department for protection by afforestation. But such measures can only serve a limited purpose. For preventing erosive action of streams and waterfalls, it has also been suggested to construct dams for storing water, and channels for directing and spreading it. Provisions for check-dams, brushwood dams, steeping, etc., for reducing the velocity of water as well as draining the *ghoras* have also been considered essential for arresting erosion. It may, however, be mentioned that no comprehensive schemes outside the reserved forests have yet materialized, except in one or two areas in Kurseong and Kalimpong subdivisions, which have been taken over by the Forest Department for protection and afforestation.

O'Malley, in the old Gazetteer of Darjiling (1907), said that artificial irrigation was common in the *Terai*, the slope of the land and the numerous small streams making it abundantly feasible. He also mentioned that lands to the north and along the Mechi, Balasan and Mahanadi rivers, where it was generally easy to dam up the streams and construct water channels, benefited most. Water from these sources is conveyed to fields sometimes situated at a long distance through irrigation channels called *ponris* or *pauris*. The big rivers, low and shallow as they are, scarcely serve the purpose of irrigation. The smaller streams are generally dammed up and the water diverted into channels. There are instances of water being conveyed in this way from sources situated at a distance of four or five miles from the fields. The local peasantry have enjoyed this right of user from time immemorial. The appliances used for irrigation are very primitive and consist usually of a bamboo basket by means of which the water is baled out by hand whenever necessary. Even the far too primitive swing-baskets of Lower Bengal and the *don* are unknown here. Well irrigation is practically unknown. It is needless to add that agriculture is also heavily dependent on rainfall—to the extent of about 80 per cent of the total cultivation of the district.

Irrigation

In the hill areas of the district the problem of irrigation assumes special importance because of the difficult terrain. The pressing need for artificial irrigation in this area will be evident if the gradual evolution of cultivating processes in the hills are remembered. Formerly the system of cultivation was that which is known as *jhuming*. Destitute of ploughs or plough-cattle, the hill tribes used to burn down the jungle and grow their scanty crops on the

land thus cleared. The soil soon became exhausted by a quick succession of crops raised by the hoe ; and in a year or two the whole settlement would move off to a fresh patch of jungle, which they cleared and exhausted, and then deserted for fresh woods.

With the reservation of the forests and the advent of the more skilful Nepalese cultivators, the Lepchas have abandoned this wasteful system of cultivation and have largely given up the hoe for the plough. The latter is now in universal use, except where the mountain slopes are too steep or stony for the oxen. From the Nepalis they have also learnt how to construct on the mountain slopes the terraces which form such a distinctive feature of Himalayan cultivation.

Rice will not grow above 5,000 feet, and does not give a good outturn above a height of 4,000 feet. Above the latter elevation, cardamom also grows while the outturn of maize, the staple food crop, is considerably less without any compensating improvement in quality. Moreover, water is scarce on the highlands and the crops ripen later, so that a cultivator cannot get the benefit of the high prices which are obtained in the market by an early crop. The result is that the highland (*lekha*), though much healthier than the low land (*awar*), is not much sought after.

Recent reports from official agencies indicate that, generally speaking, the conditions described by O'Malley still hold good for much of the hill areas of the district. The main rivers are seldom, if ever, tapped and water for artificial irrigation is generally obtained, up to the present day, from small hill streams, and consequently, the irrigation projects are almost all in the nature of minor schemes. There are no deep tube wells in the district, about 80 per cent of the area of which still depends on rainfall while the remaining 20 per cent is irrigated. The following table indicates the extent of irrigation in Darjiling district through various agencies.¹

AREA IRRIGATED IN DARJILING DISTRICT THROUGH
VARIOUS MEANS : 1960-61—1966-67
(in acres)

Year	Government	Private canals	Tanks & wells	Other sources	Total
1960-61	2,500	5,000	Nil	49,000	56,500
1961-62	2,600	5,300	„	49,200	57,100
1962-63	2,300	5,100	„	49,100	56,500

According to the Lead Bank Survey Report of Central Bank of India (1971) on the Darjiling district, about 55,000 acres had small irrigation arrangements.

¹ Source : Agricultural Economist, Government of West Bengal.

The area, yield per acre and production of irrigated crops in Darjiling district from 1961-62 to 1966-67 is shown in the table below.¹

	Year	Area (in thousand acres)	Yield per acre (in maunds)	Production (in thousand tons)
<i>Aman rice</i>	1961-62	82.5	13.07	39.6
	1962-63	78.4	9.84	29.0
	1963-64	85.0	13.43	41.9
	1964-65	86.8	11.21	35.7
	1965-66	82.9	12.18	37.1
	1966-67	85.7	12.78	40.3
<i>Aus rice</i>	1961-62	2.8	8.08	0.8
	1962-63	1.7	8.51	0.5
	1963-64	1.8	4.94	0.3
	1964-65	6.0	6.66	1.5
	1965-66	7.3	8.93	2.4
	1966-67	6.9	9.11	2.3
Potato	1961-62	6.3	71.67	16.5
	1962-63	6.6	65.62	15.6
	1963-64	7.4	68.42	18.6
	1964-65	10.2	54.17	20.3
	1965-66	10.5	46.14	17.8
	1966-67	10.3	45.36	17.2
Sugar-cane	1961-62	0.4	320.00	4.7
	1962-63	0.2	457.93	3.4
	1963-64	Below 50 acres	492.52	0.2
	1964-65	0.2	479.37	3.5
	1965-66	0.1	469.19	1.7
	1966-67	0.5	493.55	9.1
Maize	1961-62	66.6	6.20	15.2
	1962-63	66.6	6.20	15.2
	1963-64	66.6	6.20	15.2
	1964-65	66.6	6.20	15.2
	1965-66	65.5	11.00	26.5
	1966-67	65.5	11.00	26.5

¹ Source : Agricultural Economist, Government of West Bengal.

	Year	Area (in thousand acres)	Yield per acre in maunds)	Production (in thousand tons)
Wheat	1961-62	1.3	12.00	0.6
	1962-63	1.3	12.00	0.6
	1963-64	1.3	12.00	0.6
	1964-65	1.1	12.00	0.5
	1965-66	1.1	12.00	0.5
	1966-67	0.8	12.00	0.4
Pulses	1961-62	2.2	4.95	0.4
	1962-63	1.9	4.30	0.3
	1963-64	1.2	4.53	0.2
	1964-65	1.4	3.89	0.2
	1965-66	3.8	6.44	0.9
Oilseeds	1961-62	2.5	6.00	0.5
	1962-63	2.4	4.30	0.4
	1963-64	1.2	3.15	0.1
	1964-65	3.0	7.07	0.7
	1965-66	3.3	4.67	0.6
			Yield per acre (in bales (1 bale=4.85 maunds)	Production (in 1,000 bales of 400 lbs. each)
Jute	1961-62	10.3	4.61	47.5
	1962-63	9.4	2.70	25.4
	1963-64	5.8	2.41	14.0
	1964-65	7.2	2.72	19.6
	1965-66	10.7	3.42	36.6
	1966-67	9.0	3.41	30.7

The Lead Bank Survey of Central Bank of India (1971) reported the current average yield rates of the main agricultural products of Darjiling district as follows :

Name of Crops	Yield Rates
Paddy	14.15 mds.
Maize	12.40 „
Millet	7.11 „
Potato	68.91 „
Cardamom	5.98 „
Ginger	115.80 „
Oranges	29.31 thousand
Pine-Apples	8.00 „

To prevent landslides and erosion, protective bunds are constructed wherever possible and cultivators are supplied with seedlings to raise a vegetative cover on the potentially dangerous slopes. They are also advanced loans for terracing their fields. In the Siliguri subdivision landslips do not pose a problem but agricultural lands sometimes get covered with sand and pebbles brought down by the rivers, to overcome which loans are given to cultivators under land reclamation schemes.

Protective bunds

The water resources of the district have been discussed in Chapter I. Here, mention may be made of the schemes for utilizing the main rivers for purposes of irrigation. Of the two big projects launched in the district, the Jaldhaka project is mainly a hydro-electric undertaking, while the Tista Valley Project is expected to extend irrigational benefits to the whole of North Bengal and a part of the Purnea district in Bihar. The latter scheme envisages the construction of a barrage near Sivck, a few miles from Siliguri, and distribution of the impounded water in the command area, through a canal network. It has been estimated that this project based on a perennial river like the Tista, can transform the agricultural set-up in North Bengal.

Water potential and scope for exploitation

Officially, the soils of the district are divided into two groups : the brown forest soils and the *Terai* soils. There are 4,13,100 acres under the first and 1,74,400 acres under the second category.¹ A more realistic classification should treat the forest soils as a separate group. Nearly 46.07 per cent of the total area of the district is under forests as compared to only 31.92 per cent under agriculture. The forest soils in the hills are brown while those in the *Terai* are deep black and grey black. The colour becomes lighter down the profiles with decreasing organic content. The inherent fertility of the brown forest soils is very high. The low yield of crops in these soils, is, however, due to their small depth which at places may be only a few inches. Moreover, forest soils have free drainage throughout their profiles and are very rich in well-distributed humus. The percentage of organic matter in the top horizon increases with altitude but gradually decreases down the profiles. Such organic layers practically disappear from those forest soils that are brought under the plough. The principal sources of organic matter are leaves, stems, branches, roots, barks, fruits, seeds, animals and remains of micro-organisms, of which foliage is the largest single source. In general, the leaves of hardwoods contain more calcium, organic carbon, etc., than the leaves of conifers ; but the latter contain more nitrogen. That is why nitrogen content in the surface horizon (sometimes more than 0.4 per cent) increases with altitude. Acidity of leaves varies considerably influencing soil acidity. Conifers at high elevations, through the shedding of their leaves, produce more acid soils than are produced by hardwoods which, however, return approximately

Agriculture including Horticulture

Nature and variety of soils and their suitability for cultivation of different crops

¹ Source : Agricultural Chemist, Government of West Bengal.

twice as much calcium, magnesium, potassium and phosphorus to the soil annually as compared to the conifers. Thus the arrangements of nature for maintaining fertility in forest soils are quite different from those in agricultural lands where the fertilizer requirement is heavier to replace the nutrient materials removed every year by cultivation.

Maturity of forest soils depends upon the decomposition of organic matter into humus. Plant remains of mixed stands decompose more quickly than those of pure stands. Decomposition also proceeds more rapidly in soils from basic rocks than in those derived from acidic rocks. Soils developed on basic rocks are richer in calcium and other nutrients. Calcium neutralizes the decomposed product, improves the physical properties and encourages growth and activity of the bacterial population. Accordingly, decomposition is slower at higher altitudes due to climatic factors. Decomposition of organic matter at higher altitudes is mainly due to fungi while at lower elevations it is the result of a tropical climate, bacteria and animals. Debris of young plantations decompose more rapidly than those of the old or virgin forests. The pH values are consequently higher in the humus of the young than in the older stands.

The major types of humus found in the forest soils of the Dārjiling Himalayas are *Mull* and *Mor*. The former is a porous, loose, crumbly and friable mass that develops under deciduous species. It is generally less acidic, shows intrification in nature and is inhabited by a large number of earthworms and bacteria. The *Mor* type, dominated by fungi and mosses, is not as rich and is associated with coniferous soils which display a high degree of saturation of the A horizon and little accumulation of sesquioxides in the B horizon. It does not get as intimately mixed with the mineral soil below as happens in the case of *Mull*. A layer of undecomposed forest litter can easily be distinguished and the entire humus layer is fibrous and tough but not compact. The processes of podsolization are also noticeable.

Comparing the soils under plantations and natural vegetation, it appears that *Cryptomeria* soils are generally acidic and have a calcium status higher than in the high forests of this region. The nitrogen content in these soils does not seem to be appreciably higher than under natural vegetation which means that infertile conditions may occur in the surface layers of such soil. On the whole, due to high calcium content and low pH value, the soil fertility conditions in *Cryptomeria* plantations do not generally seem to deteriorate. Most of the exchangeable calcium in the surface layers is due to organic content and it appears that the pH values are not related to exchangeable calcium and organic content as in the case of European forest soils. Detailed studies have been made of the soils under tea plantations in the district and the application of sulphate and phosphate fertilizers, according to

the phosphate fixation capacity of the local soil, has been recommended. Phosphate fixation is facilitated by the presence of calcium.

A combination of nitrogen and phosphate has been found to increase the yield of paddy on *Terai* soils. Due to severe leaching by rain and presence of good amounts of organic matter, these soils are acidic, pH ranging between 4.7 and 5.8, and are poor in bases and available plant nutrients. The reserve of nitrogen, potash and phosphate are sufficient, but none of these is available to plants as they occur in an acid medium. The problem is, therefore, to neutralize the acidity without depleting the soil nutrients. Another problem of the *Terai* soils is the waterlogging which leads to stagnation of excessive moisture at the root-zone of the crops reducing their yield. On the other hand, the drainage of this surplus water is likely to deplete the soils of their nutrients. A balanced system of conservation of soil fertility should, therefore, be evolved, so that along with the removal of detrimental factors of acidity and water-logging, which displaces oxygen from the root surface, the present fertility may be kept intact. The following analysis of some representative *Terai* and forest soil profiles is based on the observations of the Directorate of Agriculture, Government of West Bengal.

SOME TYPICAL PROFILES OF TERAI SOIL

	Baghdogra (J. L. No. 82, Nakshalbari P. S.)		Matigara (J. L. No. 99, Sili- guri P. S.)		Sukna (J. L. No. 6, Siliguri P. S.)		Surujbar (J. L. No. 67, Khari- bari P. S.)
	(1)	(2)	(1)	(2)	(1)	(2)	
Depth (in inches)	0-7	17-21	0-5½	0-6	14-26	0-8	
Colour of the soil layer	Grey	Grey- brown	Grey- brown	Dark Grey- brown	Pale brown	Grey	
Coarse sand	24.0%	23.6%	6.0%	8.1%	11.4%	23.1%	
Fine Sand	55.1%	58.1%	69.4%	38.1%	46.5%	28.0%	
Silt	10.5%	10.5%	15.2%	31.0%	22.4%	32.0%	
Clay	9.4%	7.3%	8.4%	21.0%	18.4%	15.5%	
Air-day-moisture	1.0%	0.7%	1.1%	1.8%	1.4%	1.1%	
pH content	4.9%	6.0	5.4	6.4	6.7	4.7	
Carbon	0.8	0.3	0.6	1.2	0.7	0.9	
Nitrogen	0.1	0.1	0.1	0.1	0.1	0.1	
HCL Sol. Fe ₂ O ₃	4.3	5.5	3.6	3.2	3.2	5.9	
HCL Sol. Al ₂ O ₃	4.4	6.0	3.7	5.7	4.2	6.9	
HCL Sol. R ₂ O ₃	8.8	11.5	7.4	9.0	7.4	12.9	
HCL Sol. Ca O	0.2	0.1	0.1	0.3	1.0	0.3	
HCL Sol. K ₂ O ₃	0.8	1.2	0.5	0.5	0.3	1.1	
HCL Sol. P ₂ O ₅	0.1	0.1	0.1	0.2	0.1	0.1	

(contd.)

SOME TYPICAL PROFILES OF TERAI SOIL—

concl'd.

	Baghdogra		Matigara	Sukna		Surujbar
	(1)	(2)		(1)	(2)	
Crop combination	Aman-fallow Aman	Aman-fallow Aman	Aman-fallow Aman	Aman-fallow Aman	Aman-fallow Aman	Aus or Jute-Aman or vegetables or potato-wheat
Depth of water table (in feet)	3-12		3-15	8-21		4-10
Irrigation	Nil		Nil	Nil		Nil
Natural vegetation	Weeds & grass		Weeds, ferns, grass & Simul	Mixed Sal-Khair-Sisu forest		Grass

The following table gives percentages of organic matter nitrogen and pH of the A-horizon of different soil profiles under varying environmental conditions in hill forests of the district.

SOME TYPICAL PROFILES OF FOREST SOILS IF DARJILING DISTRICT

Location	Altitude (ft.)	Aspect	Mean annual rainfall (inches)	Drainage condition	Types of veg.	Types of canopy	Regene- ration of major species	pH content in A-horizon	% of organic matter in A-horizon	% of N ₂ in A-horizon
Mahaldira m Block V, Kurseong Range	6,000	Westerly	120	Well- drained	Virgin high forest	Dense thick	Sparse	7.0 to 7.5	22.32	1.14
Mana Block, Kurseong Range	5,000	S-easterly	150	-do-	-do-	Very open	-do-	6.5	19.23	0.97
Mana Block Sevok Range	5,000	-do-	-do-	-do-	(Old plan- tation 1919)	Moderate- ly open	Nil	6.5	19.48	0.76
Mana Block, Kurseong Range	4,000	W. to N.- westerly	120	-do-	Virgin high forest	Open	Sparse	6.5	18.76	0.77
Latpanchar Block, Sevok Range	3,000	N-westerly	150	-do-	-do-	Dense	Not so pro- minent	6.0	24.90	1.05
Berrick Block, Sevok Range	2,000	S-westerly	-do-	-do-	-do-	Open	Nil	6.5	10.29	0.35
Kundong Block, Sevok Range	1,000	Easterly	-do-	-do-	-do-	Open	Almost absent	6.5	7.05	0.31
Chamta Block, Sukna	500	Northerly	-do-	Not well- drained	-do-	Open	Sparse	7.0 to 7.5	7.57	0.36
Kyanuka Block, Sukna	500	Easterly	-do-	Well- drained	(Planta- tion 1940)	Open	Not so prominent	6.5	8.04	0.0028

An account of soil erosion and landslides has been given in Chapter I. Soil conservation comes within the purview of the Forest Directorate while flood control and ancillary soil conservation are looked after by the Irrigation & Waterways Department. The former has two Soil Conservation Divisions, one at Kalimpong and the other at Kurseong. The latter has also taken up a beautification programme by converting denuded mountain slopes into picnic spots which are delightful wayside parks, almost always beside a bubbling brook, planted with ornamental plants and trees. At present there are eleven such beautiful parks in the district.

Up to the middle of 1967, 680 acres of hill slopes in the Kurseong Soil Conservation Division were planted with quick-growing trees, 250 acres of landslip-prone lands were protected with structural work and another 62.5 acres with a structural as also other protective measures.

Up to 1966-67, the following works were done by the Kalimpong Soil Conservation Division.¹

Afforestation of waste land	112.8 hectares
Land capability survey	8,000.0 „
Engineering works for soil conservation	329.0 „
Stabilization of slopes etc.	66.0 „

Contour terracing, which is essential for soil conservation, is fairly extensively practised in the district. According to a recent official report,² there are 90,433.35 acres under terraces, 29,709.52 acres under wet cultivation and 1,51,270.59 acres under dry cultivation.

The cropping
pattern

In the old Darjiling District Gazetteer of 1947, Dash wrote : "Out of 1,192 square miles, the total area of the district, approximately 259 square miles are under tea leases, 437 square miles are under reserved forests, and 33 square miles are under cinchona. This leaves a balance of 463 square miles left for waste unreserved forests and cultivation of non-plantation crops."

The crops of the district broadly fall into two groups—the plantation crops like tea and cinchona and non-plantation crops like rice, maize, potato, wheat, barley and sugarcane. As cultivation and manufacture of tea and cinchona have been dealt with separately in the chapter on Industries, we may consider here

¹ Source : Forest Economist, West Bengal.

² Source : District Agricultural Officer, Darjiling.

the other major and subsidiary crops grown in the hills and in the plains. Rice is grown extensively in the plains of the district while maize, potatoes and cardamoms are grown in the hills wherever practicable. Subsidiary crops like cotton, jute, pulses, oilseeds and sugarcane are grown in the plains. While no separate crop-statistics for the hill area are available for the past an idea of the main crops grown in the plains can be had from the following statement based on the settlement records of 1925.

Name of crop	Cropped area (in acres)	Percentage to total cropped area
Rice	49,523	79.0
<i>Jowar</i> (millet)	186	0.3
Maize	497	0.7
Mustard	2,292	3.6
Sugarcane	282	0.4
Jute	3,690	5.9
Dyes	247	0.4
Tobacco	542	1.0
Garden produce	801	1.3
Fruit	265	0.4
Potatoes	313	0.5
Miscellaneous food	620	1.0
Miscellaneous non-food	3,843	6.0
Total	63,101	100.5

The other important crop-growing regions are the Kalimpong Government Estate and certain areas to the west of Tista. The cropping pattern in the former in 1920 is quoted below from Dash's Gazetteer.

Name of crop	Cropped area (in acres)	Percentage to total cropped area
Rice	8,204	13.4
Wheat	2,542	4.1
Barley, etc.	267	0.4
Millet (<i>Kodo</i>)	7,454	12.3
Maize	39,739	65.1
Mustard	539	0.9
Cardamom and spices	1,466	2.4
Fruit	203	0.3
Potatoes	322	0.5
Miscellaneous food	291	0.5
Total	61,027	99.9

As regards the cropping pattern in the West-Tista area, no complete figures are available but it is seen from the Settlement Report of 1928 of the Relling Estate that about 15,960 acres were under cultivation there in those days—rice, wheat, barley, millet, maize, cardamom, spices and potatoes being the various agricultural products. While rice, wheat, barley, maize and potato are grown both in the hills and in the plains, crops like sugarcane and jute grow mainly in the latter while seasonal fruits and vegetables are produced extensively in the hill areas.

The acreage under major and subsidiary crops in the district between 1963-64 and 1966-67 is given in the following table.¹

ACREAGE UNDER MAJOR AND SUBSIDIARY CROPS
IN DARJILING DISTRICT : 1963-64 TO 1966-67

Name of crop	1962-63	1963-64	1964-65	1965-66	1966-67
Rice	31,193	64,976	67,260	66,782	67,953
Wheat	133	188	178	256	215
Barley	180	190	210	216	235
Maize	27,331	18,405	28,638	29,163	29,209
Gram	30	140	143	346	3,438
Sugarcane	138	315	338	329	255
Potato	4,297	5,718	1,785	5,930	6,374
Vegetables & fruits	6,058	6,755	7,262	8,454	9,327

Agricultural methods

Agricultural methods in the hills vary with the crops grown. The chief food crops in dry cultivation (*Sukhakhet*) are maize (commonly known as *bhutta* or *makai*) and *buckwheat* (*phaphar*), which is a kind of inferior millet. *Sukhakhet* means land that does not receive irrigation. While rice is the most important crop under wet cultivation (*panikhhet*) the main cash crops are cardamom, potatoes, oranges and vegetables. Irrigation is essential for rice grown in the hills and it is also needed for cash crops like cardamom. For dry cultivation manuring is essential and until recently cowdung was extensively used for this purpose. Of late, the farmers are becoming fertilizer-minded. Hoes or *kodalis* are used where ploughing is not possible. Weeding and harvesting are normally done by the farmer and the members of his family without the aid of hired labour. Neighbours also help on a reciprocal basis, such mutual exchange of assistance

¹ Source : District Agricultural Officer, Darjiling.

being known as *parma*. Irrigation water is carried to the fields from neighbouring streams by means of split-bamboo or galvanized iron conduits. A brief account of the cultivation of some of the more important crops in the hills is given below.

Maize is the main food crop of the district. It grows on almost all soils at altitudes between 1,000 and 7,000 feet. The best yields are obtained from lands having a black soil, low elevation, a sunny aspect and power to retain moisture. The crop accounts for 27.8 per cent of the cropped area of the district and 70.2 per cent of the State's total production of maize. Seeds are sown from February to April either by broadcasting or sowing in rows in holes and the harvest is gathered in August or September. In 1947 the average yield per acre was 8 maunds which remained more or less static even in 1966-67 when the cropped area was about 70,000 acres. It has been suggested that the district's recent output of about six lakh maunds of maize per year can be raised to 50 lakh maunds if intensive cultivation is adopted and high-yielding seeds are used. The Maize Research Centre at Kalimpong, financed under the PL-480 programme, has evolved certain improved strains of which HIM-123 can yield 88 maunds and Ganga-101, Deccan and Ranjit 88 and 85 maunds per acre respectively. Further experiments are in progress for raising the yield to 100 maunds. In 1966-67 Kalimpong-I, Kalimpong-II and Garubathan Blocks were selected for introducing hybrid maize.

Maize

Rice is grown on terraced, irrigated land that normally requires no manuring. Seeds are sown in seed-beds in April or May and transplantation takes place in July or August, November and the early part of December being the period for harvesting. A small quantity of *bhadoi* rice, locally known as *ghaiya*, is also grown in the hills and is harvested at the end of August or the beginning of September.

Rice

Cardamom is a very valuable crop grown at altitudes varying from 1,000 to 5,000 feet. It requires shade, moderate warmth, a good supply of irrigation water and a rich soil. New cardamom fields have to be thoroughly weeded and they yield no crop for the first two years. In the third year only a half-crop is obtained and thereafter for about eight years full crops may be expected. After the tenth year the plants lose vitality and become liable to blight or damage by insects but they continue to produce decreasing quantities of crop till the fifteenth year. The plant flowers in May and cardamoms are ripe for reaping in August and September. The seedpods are then dried in a kiln (*bhati*) and are bagged and sold in the village markets usually at a good profit.

Cardamom

Potatoes are grown in many parts of the hills at elevations up to 9,000 feet above sea-level. Potatoes, if multiplied in the plains

Potatoes

for successive seasons, suffer from degeneration due to attack of virus diseases making it essential that the seed stock in the plains be replenished at least once every three seasons by fresh supply from the hills. The summer crop is ideal for this purpose as the potatoes raised in winter cannot be used as seeds. The annual production was about 1,689 tons in 1967, at least thirty per cent of which was for seed purposes. The demand for Darjiling seed potatoes comes not only from the plains of West Bengal but also from various States of India. The average yield of this crop does not exceed 30 maunds per acre while the same seed potato, when planted in the plains, gives an average yield of about 125 maunds per acre which explains the heavy demand for it.

Potato Multipli- cation Farm

In December 1947, the State Government established a State Potato Seed Multiplication Farm at Rungbull, a small village near Ghum, which now stands on 356 acres of land at altitudes between 5,500 and 7,000 feet. The actual area under potato was about 100 acres in 1968. To produce seeds of disease-free and wart-immune potatoes, highly technical control is necessary at every stage of cultivation and this is being done at the farm. With further extension of the cropped area, it is expected to be one of the largest potato farms in Asia.¹ At present it is multiplying seven kinds of seed potatoes imported from foreign countries, especially Holland, of which a white-skinned variety called 'Ackersegen' and a red-skinned variety called 'Pimpernel', evolved by the Potato Research Station of Bhanjang, are more immune from diseases and are in heavy demand throughout India. Since 1965, import of seed potatoes from Burma (known as 'Rangoon' seeds) has virtually stopped owing to foreign exchange difficulties and the shortfall is being largely made up by the produce of the Rungbull farm.²

Millet

Millet, locally known as *marwa* or *kodo*, is grown under dry cultivation at heights between 1,000 and 5,000 feet. Seeds are sown in April and May in manured nurseries and transplantation takes place in June or July, the crop being harvested in October or November. In normal years, outturn varies from 5 to 8 maunds per acre when grown alone and a little less when grown with maize.

Other crops

The principal cold-weather crops in the hills are wheat, barley, mustard and buckwheat which are often grown in land that has already yielded a crop of maize. Buckwheat is raised in dry cultivation at elevations up to 7,000 feet. It is sown in August-September and harvested in December-January, the average yield being 6 maunds per acre. Wheat, barley and mustard are not

¹ Source : Economic Botanist (III), West Bengal.

² Source : *A Short Note on Agricultural Development in West Bengal (1965-66)* ; Department of Agricultural & Community Development, West Bengal, Calcutta, 1966.

extensively cultivated in the hills. They are grown in dry cultivation at altitudes not exceeding 5,000 feet, sown in September-October, and harvested late in winter. Small crops of sugarcane are also raised in the hills and a soft thick variety is grown in limited quantities for chewing.

A large variety of fruits, such as plums, peaches, apples, pine-apples, oranges, etc. are grown in the valleys and on the slopes where the rainfall is moderate. None of these, except oranges (locally called *sunthalas*) is of excellent quality. The latter are of two broad varieties, namely the small and light ones and the bigger ones with loose casket. The better orangeries usually occur at elevations of 2,000 to 4,000 feet. The average size of an orchard is two acres and the plants are grown on terraces. The trees begin to bear fruit from their 6th or 7th year and goes on yielding at a diminished rate even up to the 75th year, the best period lying between the 16th and the 25th years. Each plant can produce 500 to 3,000 fruits per year according to its condition. Orange orchards cover about 1,000 acres of land in the district and the yield is estimated at 2 lakh fruits per acre. Mirik in Kurseong subdivision is supposed to be the most flourishing orange-growing area in the district.

Fruits

The most important crops in the plains are rice, tea and jute. Of these, tea has been dealt with in the chapter on Industries and the outturn of jute is small compared to that of other districts of the State. Rice is grown on both high and low lands and the agricultural methods closely follow the practices obtaining in the alluvial flats of West Bengal. Fields are manured with cow-dung, farmyard manure and silt from the beds of tanks. Small streams criss-crossing the area aid irrigation which is common. The upland or broadcast variety of paddy is usually coarse and is grown in a relatively smaller area. The winter or *haimantik* (locally known as *heunti*) paddy is the staple food crop usually cultivated in low lands having irrigation facilities. The following passage from the Darjiling District Gazetteer of 1947 would give an idea of the method of rice cultivation in the *Terai* region which has changed very little since then.

Cultivation in the plains

Rice

The *aman* or winter rice is first sown broadcast in nurseries in May or early June after the first rainfall. The fields to which the seedlings are transplanted in July or August have in the meantime been heavily ploughed and surrounded by *aills* to keep in the rain and later irrigation water is led to them by channels (called *pairis*). The *aus* or *bhadoi* rice is grown on higher land called *faringati*. For this crop, ploughing begins in February and is repeated five or six times. The field is then levelled, weeds and clods burnt and the ashes used for manure. Seed is sown broadcast and after germination of the seed the field is carefully weeded. This rice crop is reaped in August. There are many varieties of

haimantik paddy, the most well known being *kalanunia* which is regarded as a speciality of the *Terai* for its fine and fragrant grains. Small areas are also cultivated with *boro* and long-stemmed rice.

Fruits and vegetables

Pine-apples, jack-fruits, guavas, papaws and several varieties of lemons are grown in the plains. Another common fruit is tree tomato which was introduced from America. There is good scope for large-scale fruit cultivation on some of the foothills where the aspect and sunshine are good and the rainfall is not too heavy. Among the vegetables the most common are brinjals, sweet potatoes, chillies, garlic, onions, pumpkins, yams, tomatoes, turnips, cabbages, cauliflowers, beans, peas, beatroot, carrots, etc.

Implements used

In the *Terai* and the plains portion of the district, the bullock and the plough are in common use. According to an official report the agricultural implements used in this area towards the end of the last century were *nangal* (wooden plough), *phal* (plough-share), *kodali* (spade), *kurali* (axe), *dhelabhanga* (wooden mallet for breaking clods of earth), *dao* (large knife), *mai* (bamboo barrow for levelling the field), *bidu* (large wooden or bamboo rake for thinning or weeding the field), *kanchi* (reaping hook), *khurpi* (hand-weeder) and *bashila* (sharp instrument for splitting bamboos). The Darjiling District Gazetteer of 1947 stated : "The chief implements used are the plough, the hoe or spade (*kodali*, *farua*, or *chapra*), the fork (*kata*), the sickle (*hasswa*), the mallet (*martol*) and the crowbar (*jhampel*). A wooden harrow and a thick heavy beam are used in paddy fields and sometimes in dry cultivation to break up clods. There are also various chisels, *kukris* and Bhutanese and Lepcha knives or *chupes*; and baskets, mats, sieves and winnowing trays made locally from bamboo or cane. The *thumsi* and *namlo* are for carrying produce : the *mandro* is a mat for drying grain and for other purposes : the *namlo* is for winnowing grain. For storing grain in large quantities closely woven mats (called *bhakhari*) are made in rounded form from bamboos covered with a paste made from cowdung and earth."¹

Many of these implements are still in use though some improved implements like the seed-drill, wheel-hoe, paddy-weeder and mouldboard plough have been lately introduced.

Manuring

The traditional (and the cheapest) manure is cowdung but very little care is taken for its proper conservation. The soil in the Darjiling *Terai* as also in the plains is supposed to have a rich store of unused potential mineral plant-food owing to its vicinity to the hills. Yet the adoption of correct manuring practices may go a long way to increase food production further. J. C. Mitra in his *Report on the Survey and Settlement Operations in the Darjeeling Terai* (1918-25) stated : "Much of the cow-dung is used as fuel although other kinds of fuel are by no means rare here as elsewhere in Bengal. Oil cakes, guanos and chemica

¹ A. J. Dash—*op. cit.* p. 103.

manures are never used and bones of animals are allowed to waste away in village *golgothas*. The use of cow-dung as a fuel is a national loss and the local peasantry should be educated against it.¹

In order to increase the supply of organic manure in the rural areas, certain measures have been adopted lately which include training of farm leaders in improved and scientific methods of compost production and granting of financial aid in the form of 50 per cent subsidy for construction of pucca manure pits and brick-on-edge floors of cattle sheds for proper conservation of manure and better utilization of cattle urine. The following table would indicate the progress of the scheme in recent years.²

DEVELOPMENT OF LOCAL MANURIAL RESOURCES IN
DARJILING DISTRICT : 1964-65 TO 1966-67

Year	No. of farm leaders trained	No. of pucca pits con- structed	No. of cattle sheds con- structed	Quantity of com- post pro- duced (in tons)
1964-65	147	260	47	8,296
1965-66	247	343	122	10,284
1966-67	136	502	120	10,816

Green manuring is considered by agricultural experts as one of the best methods of improving soil fertility. In 1965-66, 40 quintals of *dhaincha* seeds were distributed to farmers in the district benefiting about 200 acres of land.

In 1967-68, there were five Block Seed Farms in the district located at Kharibari, Salbari, Pulbazar, Pulungdong and Gorubathan for multiplication of improved seeds. The foundation seeds produced by them are given, in the first instance, to registered growers for multiplication and the multiplied seeds are purchased by Government for subsequent distribution amongst other cultivators in the following year. The following table gives figures about the functioning of these farms in recent years.³

Block Seed Farm

1. J. C. Mitra—*Final Report on the Survey and Settlement Operations in the Darjeeling Terai* (1919-1925). Calcutta, 1927. p. 15.

2-3 Source : District Agricultural Officer, Darjiling.

**FINANCIAL POSITION OF BLOCK SEED FARMS IN
DARJILING DISTRICT : 1964-65 TO 1966-67**

Name of Block Seed Farm with area (in acres)	Year	Total ex- penditure Rs.	Total receipt Rs.
Kharibari (22.06)	1964-65	11,997	4,930
	1965-66	10,975	11,128
	1966-67	9,167	12,139
Salbari (19.49)	1964-65	9,916	5,352
	1965-66	12,155	8,344
	1966-67	13,678	10,819
Pulbazar (23.85)	1964-65	12,283	2,026
	1965-66	11,503	2,473
	1966-67	12,206	5,060
Pulungdong (23.05)	1964-65	8,108	4,223
	1965-66	11,605	4,784
	1966-67	12,208	4,015
Gorubathan (24.34)	1964-65	1,872	—
	1965-66	10,084	3,650
	1966-67	12,484	6,312

Seed distribution

The table below shows the kinds and quantities of seed distributed in the district in recent years.¹

**DISTRIBUTION OF IMPROVED SEEDS IN DARJILING DISTRICT :
1963-64 TO 1966-67**

(Quantity distributed in quintals and area covered in hectares)

	1963-64		1964-65		1965-66		1966-67	
	Quan- tity	Area	Quan- tity	Area	Quan- tity	Area	Quan- tity	Area
Paddy	137.3	538.9	223.8	506.0	316.2	718.1	483.5	450.0
Wheat	617.1	28.0	4.9	16.0	3.4	6.8	55.3	34.0
Pulses	—	—	—	—	15.0	0.3	1.0	2.7
Sugarcane	186.6	4.0	1,516.7	36.4	—	—	—	—
Jute	358.6	—	201.4	20.0	117.0	5.0	803.2	43.1
Potato	326.6	20.1	101.2	5,429.0	23,207.2	98.5	2,355.1	451.6
Vegetable seed	23.8	577.0	155.6	4.9	401.0	189.1	168.0	724.4
Mustard	113.5	6.0	87.8	22.8	304.6	101.5	786.4	167.9

¹ & 2 Source : District Agricultural Officer, Darjiling.

Under a scheme for setting up three seed stores in each Block area, there were altogether 13 such units in the district in 1966-67.

The more popular chemical fertilizers among the farmers of the district are ammonium sulphate urea, calcium ammonium and ammonium phosphate. In 1966-67 there were 30 fertilizer depot-holders in the district who handled 1,605.9 quintals of fertilizers during the same year. The following statement gives the consumption of various kinds of fertilizers in the district in some years.

Fertilizers

CONSUMPTION OF FERTILIZERS IN DARJILING
DISTRICT : 1963-64 TO 1966-67

(in quintals)

Year	Ammonium sulphate	Urea	Calcium ammonium	Ammonium phosphate	Total
1963-64	1,233.5	30.7	18.1	631.0	1,913.3
1964-65	27.8	2,359.7	—	128.4	2,515.9
1965-66	11.7	335.7	9.4	197.2	554.0
1966-67	74.0	1,530.0	1.9	—	1,605.9

High-yielding varieties of maize developed in the experimental farms of the district and bearing the code names Ganga-101 and Himalayan-123 are now popular among the farmers. They are responsive to high doses of chemical fertilizers, the cost of which is more than offset by the large yield. In 1966-67 about 60 quintals of these seeds were distributed in the district during the *kharif* season. Among high-yielding varieties of paddy, Kalimpong-I, Kalimpong-II, NC-678 and Taichung Native-I are in good demand. The first variety was selected for extensive trial in cultivators' plots in Kalimpong subdivision in 1964-65 and Sri Hem Lal Sharma of Bangabasti village obtained an yield of

High-yielding crop programme

66 mds. 13 seers of this paddy per acre. Some of these varieties are now being sown in other districts of West Bengal as well.¹

The more important agricultural diseases and insect pests found in the district are listed below.

Crop	Pests	Diseases
Paddy	Rice hispa & stem-borer	Leaf spot
	Rice bug	Rice blast
	Rice grasshopper	
	Rice cut-work	
	Paddy leaf-roller	
Jute	Jute semi-looper	
Sugarcane	Sugarcane top-shoot-borer	Red rot of Sugarcane
	White ants (termites)	
Vegetables (Potato, Cabbage Cauliflower, etc.)	Cut worms & Diamond black moth	Early & late blight
	Fruit fly	Club root
	Lady bird beetles	Foot rot
Fruits	Orange bugs	Foorkey disease

Plant protection

In recent years, plant protection measures have been introduced in the district and the farmers are becoming familiar with the use of prophylactic materials like D.D.T. 50%, B.H.C. 10%, Aldrin 5%, Lime-Sulphur solution, Folidole, Parathion, Endrin-20 E.C., etc. In 1965-66, 6,286 acres of arable land was brought under plant protection measures and about 27,215 kg. of pesticides were spent on them while in 1966-67 some 36,365 kg. of pesticides were utilized for benefiting 6,646 acres of cropped land.²

1 Source : *High-yielding Varieties Programme in West Bengal (1966-67)*.

Department of Agriculture & Community Development, West Bengal, Calcutta, 1966.

2 Source : District Agricultural Officer, Darjiling.

In 1963-64 there were 614 Result Demonstration Centres in the district which offered practical demonstrations to all interested persons of the efficacy of improved cultivation techniques. Besides these small units, a few 42-acre demonstration centres have also been opened to achieve the same objectives on a wider scale. Up to 1964-65, 2,119 acres of culturable waste lands were reclaimed in the district, 300 acres were terraced in Kalimpong subdivision and 200 acres in Siliguri subdivision were conserved by contour bunding.

Activities of the
Agriculture
Department

Started in October 1928, the District Seed Farm, Kalimpong comprises various wings when the following research schemes are being worked out. The All India Coordinated Maize Improvement Scheme was taken up in 1950. The work envisages the testing and selection of promising germ-plasms of maize and hybrids which has resulted in the sponsoring of A-de-Cuba, a composite variety, and Himalayan-123, a hybrid, for general cultivation. The former has also been found suitable for the plains yielding about 50 maunds of grains per acre while the latter is very popular in the hills with an average yield of 70 maunds per acre. Apart from these, top crosses and mass selection work are also in progress.

Agricultural Re-
search Centres and
Field Station

District Seed Farm
Kalimpong

All India Coordi-
nated Maize
Improvement
Scheme

As regards experiments with paddy, various germ-plasms and selected lines from hybrids are being tested to evolve strains suitable for the hill areas. The development of high-yielding varieties of paddy, namely Kalimpong-I, Kalimpong-II, NC-678 and Taichung Native-I, through numerous field trials, has already been described. Improvement of local varieties has also been made and two selections MPRS-I and MPRS-II have been recommended for general cultivation in the hills.

Among other researches in the District Seed Farm, mention may be made of the standardization of the technique for cauliflower seed production and the introduction of improved strains of peas, beans, cabbages, radish, tomato, carrot, lady's finger, etc. Two other schemes aim at improving temperate and sub-tropical fruits like orange, peach, plum, apple, etc., for which cuttings from Kashmir and other places are procured and distributed to the farmers. A separate station for these schemes will soon be opened at Dhalapchan, a few miles from Kalimpong. Special attention is being paid to immunize the orange crop from pests and diseases. Research is also in progress for developing better strains of black pepper and cardamom, which are important cash crops and foreign exchange earners. There is also a Pine-apple Research Station attached to the Block Seed Farm at Salbari near Sukna. Here, research on the improvement of this fruit is in progress and its multiplication through stem-slices has opened a new horizon for its economic propagation.

**State Potato
Experimental Farm
Bhanjang**

The object of establishing the State Potato Experimental Farm at Bhanjang was to conduct breeding and agronomic research for finding out better varieties of potato in respect of yield, quality and resistance to diseases as also to ascertain the optimum cultural and manurial requirements of the crop. Started in 1944 on 5 acres of land taken from the Forest Department, it is the oldest potato research station in the hills and is situated on the Ghum-Sukhiapokhri Road at a distance of about 8 miles from Darjiling. Its cultivable area now exceeds 18 acres on which various experiments are performed. There is also an insect-proof glass-house and a small field laboratory. The improved potato strains evolved at this farm are 'Ackersegon,' 'B-1965' and 'Ultimus', which are suitable both for the hills and the plains, and 'Pimpernel' which does well at elevations above 5,000 feet. During the 1967 crop season, three varieties of potato were evolved which showed promise for resistance to the devastating blight disease.

**State assistance
to agriculture**

Besides different kinds of loans distributed by the Block Development Officers out of their own budgets, the District Magistrate also advances loans to deserving agriculturists from the funds placed at his disposal. While loans and grants for minor irrigation works, reclamation of waste land and the like are paid from the Block budget, the District Officer advances agricultural loans, cattle purchase loans and fertilizer purchase loans through the Block Development Officers as and when necessary. The following statement gives figures (in rupees) of such loans given to agriculturists of the district in recent years.¹

Kind of loan	1962-63	1963-64	1964-65	1965-66	1966-67
Agricultural loan	16,500	17,800	18,500	2,100	4,200
Cattle purchase loan	18,737	20,275	10,550	5,700	4,400
Fertilizer purchase loan	1,403	4,009	3,704	3,049	1,872

An account of the various kinds of loans and grants paid to farmers in recent years out of the Block budgets has been given in another Chapter and need not be repeated here.

**Co-operative
societies**

The co-operative societies are also rendering financial assistance to their members, the number of such societies in the three hills subdivisions in 1967 being 203 with a total membership of about 12,400.² In 1966-67 there were two large-sized co-operative marketing societies in the district, namely, the Kalimpong Thana

¹ Source : Deputy Commissioner, Darjiling.

² Source : Assistant Registrar of Co-operative Societies, Darjiling.

Agricultural Marketing Society Ltd. and the Sukhiapokhri Thana Agricultural Co-operative Marketing Society Ltd., of which the former handled business during the same year amounting to Rs. 50,798. In the same year, a sum of Rs. 2,45,185 was received by the working co-operative societies of the district from the Central Co-operative Bank for advancing the same to their members as agricultural loans.

According to the monograph prepared by D. Quinlan in 1908, the Bhutia milkmen holding the largest herds in the district used to make their cattle live off the forests with meagre helpings of maize, gram or other coarse grains.¹ Nowadays, hill people generally take good care of their cattle but owing to shortage of pastures they take recourse to stall feeding very often. Normally, the fodder position is relatively easy from June to November when rice and millet straw are available after the harvesting of these crops. Between December and May, the animals are fed from lopped tree branches.

Animal Husbandry
and Fisheries

Fodder

Improved varieties of fodder seeds and cuttings are distributed to farmers at subsidized rates and in 1966-67 about 75 acres of land was cultivated with such seeds. The cattle rearers are also given subsidies to construct silopits and to purchase chaff cutters etc. There is a seed multiplication-cum-fodder demonstration farm at Algarah (Kalimpong P.S.) with a 21-acre block of land under fodder cultivation.

Fodder develop-
ment

Milk supply is important in the four subdivisional towns in particular which are not only populous these days but also attract many visitors throughout the year. There is, however, no milk supply undertaking in the public sector catering to this pressing demand which is met by the local dairy farmers and *goalus* (milkmen) from their flocks of cows and buffaloes.

Milk supply

The average milk-yielding capacity of the hill cattle is better than that of the stock in the plains but the former cannot be said to be very healthy. In 1951 the number of cows in milk in the district was 22,327 while that of she-buffaloes in milk was 1,009. In 1956 the overall figures of cows and buffaloes were 1,65,635 and 6,229 respectively.

In the past, cross-fertilization of cattle with improved breeds was introduced in the hills by the planters, missionaries and others. This is one of the main reasons why many high-yielding cross-bred cows are found in the hill areas today, some of which have since developed into important milk-producing centres. A scheme to upgrade local stock with Jersey strains, through artificial insemination, was introduced during the Second Plan period

Measures to
improve quality
of breeds

1 D. Quinlan—*Monograph on Breeds of Cattle of Darjeeling District* Calcutta, 1908. p. 4.

covering a number of places in Darjiling and Kalimpong subdivisions. In 1963-64 a new scheme known as the Hill Cattle Development Scheme was taken up with the same objective and a sub-centre with two subsidiary centres was opened. In Siliguri and Kalimpong subdivisions, pedigree Haryana and Siri bulls also service local cows. A dairy project in the public sector for production of cheese, butter and milk powder is expected to be taken up in the district during the Fourth Plan. With funds made available by the Tribal Welfare Department, a scheme for multiplication of goats was recently introduced under which pedigree goats, both male and female, were distributed, free of cost, among the tribal people of the district.

Poultry development work

During the First and Second Plan periods, a total of 4,668 poultry birds—Rhode Island Red and White Leghorn—were distributed at different places of the district while during the Third Plan intensive poultry development work in selected areas was taken up which assured reasonable returns to the poultry keepers.

Piggery development work

During the Second Plan 6 pig rearing units were set up in the district with funds allotted by the Tribal Welfare Department. According to official information, a bigger pig breeding farm is going to be established shortly at Dunga in Kalimpong subdivision.

Sheep breeding

Sheep rearing, an important occupation of a section of the local people, has declined of late due to various reasons. With a view to reviving it, the establishment of a large sheep farm at Kashone in Kalimpong subdivision is under consideration and about 276 acres of land has already been acquired for the purpose.

Livestock census

The following statements give figures of livestock and poultry populations in the district in 1961.¹

**LIVESTOCK POPULATION IN DARJILING
DISTRICT : 1961**

Kind of livestock	Male	Female	Total
Cattle	81,401	98,576	1,79,977
Buffaloes	8,639	7,774	16,413
Sheep	—	—	3,379
Pigs	—	—	9,801
Goats	—	—	84,782
Horses and Ponies	—	—	1,689

¹ Source : Superintendent of Livestock Census, West Bengal,

POULTRY POPULATION IN DARJILING DISTRICT : 1961

Hens	74,042
Cocks	48,325
Chicken	53,346
Ducks	35,480
Drakes	20,984
Ducklings	14,773
Others	3,483

In 1947 there were 4 Veterinary Assistant Surgeons in the district, each in charge of a hospital at Dārjiling, Ghum, Kurseong and Kalimpong, for treating non-contagious diseases and wounds of animals and 4 itinerant Veterinary Assistant Surgeons with headquarters at Kurseong, Kalimpong, Ghum and Siliguri responsible for the prevention and control of infectious diseases within their respective jurisdictions. There were besides an Assistant Superintendent and a Glanders Inspector attached to the veterinary vaccine establishment at Kurseong for examining pathological specimens and preparation of rinderpest vaccine and other biological products. This administrative set up compared very favourably with that obtaining in the first decade of the present century when a solitary itinerant Veterinary Assistant, paid by the Dārjiling Improvement Fund, used to tour about the district dealing with outbreak of livestock diseases. From available statistics it appears that 2,400 cattle were treated in 1903-04, 1,500 in 1904-05 and 1,300 in 1905-06, while in 1946-47 each of the four veterinary hospitals in the district treated 1,500 to 2,000 animals as out-patients and 300 to 400 as in-patients besides the large number of animals attended to by itinerant officers while on tour.

Veterinary aid

सत्यमेव जयते

Before the launching of the First Five-Year Plan, all veterinary hospitals in the district were run by local bodies like the District Board and Darjiling-Himalayan Society for the Prevention of Cruelty to Animals and only the Veterinary Assistant Surgeons were appointed by Government to look after work in the hospitals. There were also 6 veterinary dispensaries in the district with one itinerant Veterinary Assistant Surgeon and two Veterinary Field Assistants attached to each. They treated general cases, performed mass vaccination, controlled outbreaks of epidemics and undertook propaganda work. There was no state hospitals or aid-centres in the district at that time.

During the First Plan period, the 4 veterinary hospitals were provincialized and fully equipped. Four veterinary dispensaries at Gorubathan, Mirik, Dārjiling and Tindharia, each under an itinerant Veterinary Assistant Surgeon, were established while 3 peripatetic service centres also started functioning at Bijanbari, Sukhiapokhri and Takdah. During the Second Plan period, 3 quarantine stations were established to check and vaccinate

cattle entering or leaving the district. Five more peripatetic service centres were set up at Kalimpong, Algarah, Siliguri, Mirik and Gorubathan. The Third Plan period witnessed the reconstruction of the three Government veterinary hospitals at Kurseong, Kalimpong and Siliguri while the one at Siliguri was upgraded into a Class A State veterinary hospital. Eight new veterinary hospitals were also established and one artificial insemination centre started functioning at Siliguri. The construction of 2 veterinary dispensaries in the Darjiling-Pulbazar and Kalimpong Development Blocks was also sanctioned. Other steps included the setting up of an isolation shed at Pedong and the provision of a mobile veterinary van at Siliguri for emergency purposes. Two peripatetic service centres were also opened for working in the various Development Blocks.

The following table furnishes figures of mass vaccination undertaken in the district in recent years in respect of the more important livestock and poultry diseases.¹

Year	No of vaccinations against Livestock diseases				Poultry diseases
	Rinder- pest	Anthrax	H. Sept	Black Quarter	
1963-64	50,365	1,174	2,529	380	61,315
1964-65	49,512	1,000	1,368	Nil	69,998
1965-66	44,502	340	650	100	93,237
1966-67	42,456	325	Nil	390	70,669

In 1965-66 as many as 11,125 livestock and 15,227 poultry birds were treated in the various hospitals, dispensaries etc. in the district, the corresponding numbers for 1966-67 being 13,359 and 26,028 respectively. Artificially inseminated cows numbered 12 and 108 for the same years.

Development of fisheries

A full account of the various species of fish found in the district has already been given in Chapter I. In recent years the Animal Husbandry Department of the State Government has initiated certain measures for developing pisciculture in the district. A model farm has been set up at Kalimpong to demonstrate how fish can be produced in the hills by confining *jhora* water. Researches are also being conducted in this farm to find out the most suitable varieties for the hills and to improve their quality. There is also a provision for advancing loans of Rs. 2,000 per bigha for developing new tanks in the hill areas by impounding the water of streams. At present a District Fishery Officer posted at Siliguri, who is assisted by an Assistant Fishery Officer stationed at Kalimpong, looks after fisheries development work in the district.

¹ Source : District Veterinary Officer, Darjiling.

The industrial structure of North Bengal is not as varied as elsewhere in West Bengal. Only about 11 per cent of the total workers of North Bengal are employed in manufacturing industry. To strike the necessary regional balance, industrial development of North Bengal is imperative since the area there with the traditional agrarian structure has already reached a saturation point.

Forestry

Importance of forestry in the economy of the district

The following table on comparative land-use in Darjiling district and the State as a whole reveals that the remarkable extension of arable land in the former has hardly been at the cost of her forest areas.

COMPARATIVE LAND-USE STATISTICS OF DARJILING DISTRICT AND THE STATE¹

Year	Percentage of arable land to geographical area		Area under forest		Percentage of forests to geographical area		Other lands and water bodies in hectares	Per capita agricultural area in hectares		Per capita forest area in hectares	
	Dar-jiling	West Bengal	Dar-jiling	West Bengal	Dar-jiling	West Bengal	Dar-jiling district	Dar-jiling	West Bengal	Dar-jiling	West Bengal
1901	19.76	47.00	1,554	13,491	51.54	18.84	865	.24	.21	.62	.09
1911	23.45	53.09	1,554	13,032	55.55	16.57	754	.27	.25	.59	.08
1921	21.39	44.01	1,481	13,291	49.14	16.97	889	.23	.21	.52	.08
1931	20.38	44.08	1,427	12,297	45.46	15.44	1,072	.20	.20	.44	.07
1941	24.50	46.98	1,414	12,128	45.81	15.86	917	.20	.16	.37	.06
1951	36.67	59.55	1,430	12,255	46.01	15.38	538	.25	.19	.32	.05
1961	31.92	62.04	1,432	11,972	46.07	13.66	684	.16	.16	.23	.03

Between 1901 and 1961 Darjiling's forest area diminished by 122 sq.km. or by 5.47 per cent only, whereas its arable land increased by 400 sq.km. or by 22 per cent of its geographical area. However, due to a higher rate of population increase, the per capita agricultural and forest areas have shown a sharp decline. The total land under forests in India is hardly 18 per cent, whereas according to international standards the minimum land under forest should be 33 per cent of the total area. Darjiling, in comparison, has 46.07 per cent of its area under forests. The following table shows that the forest area of the district has remained more or less constant, whereas areas both under

¹ Source : *Centenary commemoration Volume, West Bengal Forests*. Calcutta, 1964. pp. 263 and 269.

agriculture and tea have extended. From a study of the productivity of lands (up to 1951), it appears (see subsequent sections and the chapter on Industry), that while agricultural productivity had gone down considerably, the productivity of both tea lands and forests had increased substantially. In point of viability, forestry came into its own only after 1941 as is proved from the fact that forest productivity was more than double of that of tea during the decade 1941-51.

The industrial demand for wood in West Bengal is very high and of her total requirement of 0.63 million tons of wood only 15 per cent is supplied by West Bengal forests which in their turn comprise only 13.7 per cent of the total land area. West Bengal cannot, therefore, afford to waste this scarce material in the process of production. A particle board plant, referred to above, can profitably utilize the waste products of saw-mills and ply-wood mills. Similarly, the proposed paper mills are to produce wood pulp by chemical fiberization of chipped wood and mechanical attrition of saw dust, etc. Of the total pulp requirement of the proposed newsprint factory 80% could be mechanical and 20% chemical pulp, the raw material for which are readily available. The setting up of a fibre-board plant and a hard-board-cum-insulation-board plant is also called for. Darjiling has also fair prospects of developing such small-scale industries as hand-made paper, shuttle and bobbin manufacture from birch wood, wood briquettes (fuel) from saw-dust and miscellaneous small wood products like wooden toys, curios, match sticks, tooth-picks, smoking pipes, etc. The tea estates also consume large quantities of firewood and some timber for box-planking. Large quantities of bamboos are used for making mats and baskets. The towns and larger villages of the district require huge supplies of firewood and charcoal as also considerable quantities of timber for housing and other constructional purposes.

Role of forest policy

In the initial stages of reservation of forests in the district by Government, these were worked on a permit system, i.e., the purchasers were allowed to fell trees on payment of a fixed price per tree. This naturally led to the selection of the best stems in the most accessible areas resulting in an unscientific exploitation of forest resources. In 1870-71, Government of Bengal, therefore, laid down that no tree should be felled except by the direct agency of the Forest Department. During the last quarter of the 19th century, the demand for firewood from the tea gardens and of sleepers from the railways increased considerably. By the time the First World War ended, great strides had been taken in the reorganization of forest research for the advancement of forestry and the role of the forests in the national economy of the country came to be recognized. Planned regeneration of forests was introduced where natural growth failed and this brought in its wake far-reaching changes in the composition of

the forests. The selection of plant species for any particular locality was always guided by careful study of site conditions and their bearing on forest growth. The *sal* plantations in the plains and valleys, teak on the well-drained flats and slopes and miscellaneous trees (*Chukrasia tabularis*, *Gmelina arborea*, *Cinnamomum cecidodaphne*, *Michelia Champaca*, *Terminalia myriocarpa* and many others) in the foothills, the Duars and Terai were the results of these experiments. From 1930 onwards a number of exotic plants was also introduced successfully.

In the early stages, forests were considered as timber producing agencies alone without any reference to the role that they can play in watershed protection. While the forest cover ensures an optimum condition for infiltration, percolation and subsequent storage and discharge of water, the removal of vegetation tends to initiate a progressive chain of deterioration affecting the water-regime in the end. Forestry also provides endless opportunities for research on crop physiology. Experiments on determination of evapotranspiration and moisture retention have been taken on hand under different forest densities with a view to ascertaining the optimum density of a crop that can be maintained on a particular site. Results of such investigations are likely to stimulate re-thinking and can bring about far-reaching changes in the forestry practices followed in the State.

Little is now known of the forests' link with the soil. Hence, the usefulness of several agricultural crops as a cover crop as well as a compensatory crop is being examined in the *taungya* plantations. The results have been extremely encouraging with ramie and pine-apple. The older plantations have given clear indication of the importance of raising the planting stock from the seeds of superior genetical worth and study of the diverse genetical groups of various species is being followed up. Already seed orchards of teak and eucalyptus have been established to study the genetic diversities and to produce tested seeds of desirable strains. The current programme lays particular stress not only on the raising of superior varieties but also on introducing species of quick growth habits. The promising species are *Eucalyptus globulus* (Darjiling), *Eucalyptus saligna* (Lopchu, Sukna, Kameshi), *Eucalyptus viminalis*, *E. gonicalyx*, *E. grandis*, *E. longifolia*, *E. diversicolor*, *E. marginata* (Kamesh-Kalimpong Division) and *Anthocephalus cadamba* (Duars). The search for a tropical pine capable of producing good pulp is still on. The adoption of the clearfelling system followed by artificial regeneration of economically important species has gone a long way in bringing about considerable relief in a situation of persistent scarcity. But the gap is very wide indeed. So, the pattern of research should be correlated to the economic fabric of the region which regulates the pattern of consumption of diverse forest produce. Population increase tends to reduce forest areas while

augmenting the demand for forest produce. Forestry has, therefore, to be production-oriented without giving up the sheet-anchor of conservation.

The following table shows the average annual revenue and expenditure in the three forest divisions of the district during the First and Second Plans as also the first four years of the Third Plan which indicate that only a small percentage of the surplus revenue was ploughed back for developmental purposes. What is more, normal expenditure was increasing at a rate higher than developmental expenditure except in the Kalimpong Division which, from a deficit budget during the Second Plan, reached, in 1964-65, not only a position of surplus, which was higher than the Darjiling Division, but also invested the largest amounts in development. The huge surpluses vouchsafe the implementation of a robust forest policy in Darjiling district which earned, in 1964-65, about one-fifth of the State's total revenue from forests.

FINANCIAL POSITION OF THREE FOREST DIVISIONS
OF DARJILING DISTRICT
(Figures in Rs.)

		Average annual revenue	Average Annual expenditure		Average annual surplus or deficit including develop- mental ex- penditure
			Normal	Develop- mental	
1946-74	Da	3,09,975	2,93,623	—	16,352
to	Ka	4,10,030	3,34,163	—	75,867
1950-51	Ku	10,75,307	8,46,207	—	2,29,100
1951-52	Da	3,23,974	3,48,827	—	24,853
to	Ka	4,00,621	3,35,387	—	65,234
1955-56	Ku	11,08,466	7,28,924	—	3,79,542
1956-57	Da	5,96,234	4,45,055	77,493	73,686
to	Ka	4,76,123	3,48,039	3,10,931	—1,82,847 (deficit)
1960-61	Ku	14,74,361	6,26,567	77,565	7,70,229
	Da	8,34,375	5,95,940	66,355	1,72,100
1961-62	Ka	6,36,096	3,36,783	1,73,572	1,25,741
	Ku	16,79,080	6,14,096	85,045	9,79,939
	Da	8,82,816	5,53,161	40,944	2,88,711
1962-63	Ka	6,38,269	3,73,878	2,22,545	41,846
	Ku	20,47,645	6,48,979	73,476	13,25,190
	Da	9,64,151	5,98,062	83,278	2,82,811
1963-64	Ka	8,71,314	3,93,338	3,24,227	1,53,749
	Ku	24,64,148	5,94,173	53,716	18,16,259
	Da	10,91,850	6,49,491	93,723	3,48,636
1964-65	Ka	12,22,441	4,12,607	4,52,664	3,57,170
	Ku	15,36,047	6,32,375	62,648	8,41,024

Note : 'Da', 'Ka', and 'Ku' denote Darjiling, Kalimpong and Kurseong Forest Divisions respectively.

CLASSIFICATION OF DARJILING FORESTS
ACCORDING TO OWNERSHIP ¹
(Figures in sq.km.)

Year	Reserved forests	Pro- tected forests	Un- classed State forests	Tea garden forests	Other private forests	Total forest area
DARJILING DIVISION						
1901	298	—	3*	129	39*	469*
1911	290	—	3*	129	39*	461*
1921	290	—	3*	90	39*	422*
1931	290	3	3*	64	39*	399*
1941	287	3	3*	59	39*	391*
1951	287	16	3*	59	39*	404*
1961	295	16	3	56	39	409
1964	295	16	3	56	36	406
KALIMPONG DIVISION						
1901	546.49	—	56.98*	7.77	—	611.24*
1911	582.75	—	20.72*	7.77	—	611.24*
1921	582.75	—	20.72	5.18	—	608.65
1931	587.93	—	20.72	5.18	—	613.83
1941	582.75	—	20.72	5.18	—	608.65
1951	585.34	.70	20.72	5.18	—	611.94
1961	582.75	.60	20.72	5.18	—	609.25
1964	582.75(a)	.60	20.72(b)	5.18	—	609.25
KURSEONG DIVISION						
1901	282.31	—	2.59*	126.91(c)	62.16*	473.97*
1911	290.08	—	2.59*	126.91(c)	62.16*	481.74*
1921	290.08	—	2.59*	95.83(c)	62.16	450.66*
1931	290.08	—	2.59*	59.57(c)	62.16	414.40*
1941	290.08	—	2.59*	59.57(c)	62.16	414.40*
1951	290.08	—	2.59	59.57	62.16	414.40
1961	290.08	2.59	2.59	56.98	62.16	414.40
1964	290.08	2.59	2.59	56.98	56.98	409.22

(a) Includes 38.85 sq.km. under the Cinchona Directorate.

(b) Includes 12.33 sq.km. of Khasmahal forests.

(c) There is no accurate statistics available for tea garden forests. The areas have been arrived at from the total areas under tea grants minus actual tea-plantation and tea-labour lands.

* Indicates more than the figure quoted as the actual is not known.

¹ Source : *West Bengal Forests ; Centenary Commemoration Volume*. Calcutta, 1964 pp. 275-76.

The preceding table indicates that since 1901 ownership of the forests in the district has remained almost unchanged. While the area under tea garden forests has decreased in all the divisions, there has not been any appreciable rise in the area under reserved forests.

The following table shows the extent of State-managed forests in the district classified according to the various forest types.

EXTENT OF VARIOUS TYPES OF STATE
FOREST IN DARJILING DISTRICT

(Figures in sq. km.)

Division/ State	Forest area	Area Under							
		Hill Forests				Terai & Duars Forests			
		Coni- ferous, rhodo- dendrons	Broad-leaved			Sal		Rive- rain	Other broad- leaved & Savana
			Up- per Hill	Mid- dle Hill	Low- er Hill	Hill Sal	Pla- ins Sal		
Darjiling	311	46	225	3	13	24	—	—	—
Kalimpong	536	23	155	88	174	96	—	—	—
Kurseong	292	—	26	23	72	46	52	23	50
State Total	11,548	69	406	114	259	166	995	279	578

Forest produce

In all the three forest divisions of the district, the pulpwood plantations registered the highest annual increment (10.50 cubic metres per hectare), the corresponding growth in the high virgin forests being only 0.70 cubic metres per hectare. Next in importance is match-wood, the annual increment of which is 5.95 cubic metres per hectare in the plantations but only 2.10 cubic metres per hectare in the high forests. The importance of match-wood as a revenue earner is, however, more than that of pulp-wood, the respective prices at present being Rs. 800 and Rs. 5.50 per ton. Since the inception of the First Five year Plan, the West Bengal Forest Department has, very wisely, reserved all soft-wood species suitable for match manufacture.

The following table gives figures relating to annual increment and exploitation of the Darjiling forests in 1964 :

ANNUAL INCREMENT AND EXPLOITATION OF FORESTS IN DARJILING DISTRICT : 1964 (Contd.)

High Forests										
Plantations					High Forests					
	Area (in hect.)	Current annual increment (cub.m/ hect.)	Average Age (Yrs.)	Total annual increment (2x3) (in cub. m.)	Reduced actual area (in hect.)	Current annual increment (cub.m/ hect.)	Average Age (Yrs.)	Total annual increment (6x7) (in cub. m.)	Gross annual increment (5+9)	Average annual ex- traction (last 4 years) (in cub. m.)
1	2	3	4	5	6	7	8	9	10	11
DARJILING DIVISION										
Constructional	1,695	1.75	20	2,966.25	7,284	.35	90	2,549.40	5,515.65	Not differ- entiated
Furniture	2,408	1.75	20	4,214.00	1,275	.84	90	1,011.00	5,285.00	
Ply-wood	240	1.75	20	420.00	222	1.05	40	233.10	653.10	
Teak	100	3.85	5	385.00	—	—	—	—	385.10	
Match-wood	3	5.95	10	17.85	52	2.10	50	109.20	127.05	
Pulp-wood	1,455	10.50	15	15,277.50	4,188	.70	100	2,931.60	18,209.60	
Box-wood	1,941	3.64	20	7,065.24	6,313	1.05	30	6,628.65	13,693.89	
Total	7,842	—	—	30,345.84	19,334	—	—	13,522.95	43,868.79	5,555.20

A sample survey undertaken in 1962 by the State Forest Directorate indicated that the demand for raw materials from various wood-based industries has grown irrespective of the actual and potential supply capacity of the North Bengal forests. It has, therefore, been the policy of the State Government to even out these imbalances and the deficiency in pulp-wood has been made good, teak introduced and excesses of box-wood and ply-wood reduced.

In the Darjiling Division teak plantations started only in 1958 and by 1964 there were 100 hectares under it. In Kalimpong Division there were only 23 hectares under teak in 1950 which increased to 589 hectares in 1964. Kurseong Division recorded a rise from 364 hectares in 1950 to 1,399 hectares in 1964 under teak. The area under cryptomeria in Darjiling Division increased from 946 hectares in 1950 to 1,343 hectares in 1964. Darjiling and Kurseong Divisions have yet to open their account with eucalyptus plantations which hold much promise. *Sal* plantations, it appears, are not growing as fast as those of teak and cryptomeria. In Darjiling and Kurseong Divisions teak has already overtaken *Sal* in terms of acreage. All these plantations are the result of more than half-a-century's research and experiment.¹

Teak, Cryptomeria
and *Sal*

The following table shows the progressive increase of plantation areas in the State-managed forests of Darjiling district relating to various industrial end-uses.² It is clear that there is much scope for the conversion of reserved forests into useful plantations to assure a fair supply to all wood-based industries, the future demand of which will naturally depend on various factors including technological improvements, consumers' taste, population, per capita income etc. The potential supply of the district's forest produce, when such conversion is complete, will no doubt go up considerably but the future demand will possibly more than match it. Throughout the world today, plywood, particle-boards, fibre-boards, etc., are more in demand than timber. There is thus a trend (which is also evident from the following table) to make good the deficiency of plywood, match-wood and teak and maintain, if not increase, the emphasis on pulp-wood. The figures for the 1950-64 period show that of the 7,672 hectares of plantations then raised in the district, 1,587 hectares (or only 20%) were allotted to constructional timber, the balance being covered with others.

1 Source : *Centenary Commemoration Volume : West Bengal Forests*. Calcutta, 1964. pp. 185-86.

2 *ibid*, pp. 293-94.

GROWTH OF PLANTATIONS IN DARJILING DISTRICT AND THEIR INDUSTRIAL END-USE

(Figures in hectares)

DARJILING DIVISION

DIVISION	Year	Industrial End-use							
		Progres- sive to- tal plan area	Const- ruc- tional	Teak	Match- wood	Ply- wood	Furni- ture	Pulp- wood	Box- wood and Misc.
Added between	1930	2,834	610	—	—	29	904	706	585
	1930-40	1,222	258	—	1	61	443	218	241
	1940	4,056	868	—	1	90	1,347	924	826
Added between	1940-50	1,754	341	—	1	57	613	135	607
	1950	5,810	1,209	—	2	147	1,960	1,059	1,433
Added between	1950-64	2,032	486	100	1	93	448	396	508
	1964	7,842	1,695	100	3	240	2,408	1,455	1,941
Percentage of reserved forest of the Division		27	6	—	—	1	8	5	7

KALIMPONG DIVISION

Added between	1930	1,018	55	3	37	176	427	—	320	
	1930-40	1,185	52	5	40	146	436	—	506	
	1940	2,203	107	8	77	322	863	—	826	
Added between	1940-50	1,223	98	15	36	84	311	101	578	
	1950	3,426	205	23	113	406	1,174	101	1,404	
Added between	1950-64	2,984	425	566	64	153	667	360	749	
	1964	6,410	630	589	117	559	1,841	461	2,153	
Percentage of reserved forest of the Division		11	1	1	—	1	3	1	4	

KURSEONG DIVISION

Added between	1930	1,143	345	109	3	74	220	72	320	
	1930-40	1,122	162	110	10	97	297	81	365	
	1940	2,265	507	219	13	171	517	153	685	
Added between	1940-50	1,763	174	145	1	316	447	81	599	
	1950	4,028	681	364	14	487	964	234	1,284	
Added between	1950-64	2,656	676	1,035	2	225	251	100	367	
	1964	6,684	1,357	1,399	16	712	1,215	334	1,561	
Percentage of reserved forest of the Division		23	5	5	—	2	4	1	6	

A scientific approach to forestry presupposes a systematic study of Botany and this also happened in respect of the Darjiling region. A number of illustrious officials, such as Brandis, Schlich, Manson, Shebbeare and Cowan, while engaged in finding a rational approach to forest management, made significant contributions to silviculture. Even in the oldest annals (1868-91), we find ample evidence of extensive research on plant conditions on the basis of which various working plans were formulated for different sites. The silvicultural knowledge acquired through these studies made itself amply manifest in the subsequent management of forests. Experimental forestry was not perhaps planned then as meticulously as it is done today, yet it did not lack an intelligent approach.

Silviculture

By 1920, when Shebbeare's plan for the Buxa Division came out, we notice a turning point in the history of forest management in the Darjiling area. Perforce, it moved away from the concept of natural regeneration and leaned towards the more dependable method of *taungya*, an agri-silvicultural system borrowed from Burma, under which labourers are settled in different chosen sites called 'forest villages'. In return, they are asked to raise forest plantations in clearfelled areas, raising their crops for the first two years in between the lines of the forest species. This dispensed with the shifting *jhum* cultivation causing forest destruction and consequent erosion of soil and a number of well-composed plantations came into being and artificial regeneration work became standardized. In 1919, the post of a State Silviculturist was created for furthering researches on ecological factors governing the selection of species for any particular locality, careful study of site conditions and their relation to forest growth. Thereafter, silvicultural nurseries were opened at Hum and Sukna in 1931 and at Ramam in 1932.

Since most of the virgin forests were being gradually converted into artificial plantations, it became necessary to preserve samples of original forests. Therefore 'preservation plots' were created at different sites where other forestry operations were banned. The first 'preservation plot' was created in 1932 at the Tangu Range of Darjiling Division. At present there are eight such plots in the same Division located at North Rimbick, Ramam, Phokte, Rithu and Kankibong Blocks as also on the Takdah Range at Lopchu and at Badamtam near Darjiling. In the Kalimpong Division there are only 3 such plots on the Jaldhaka, Chel and Labha Ranges. The seven preservation plots in Kurseong Division are situated on the Kurseong, Pankhabari and Sevok Ranges.

Experimental plots

Study of growth increments of various trees began as early as in 1867 when it was mainly confined to periodical measurement of individual trees, and later on, to stump and stem analysis. For proper understanding of growth increments a regular and thorough investigation followed by elaborated analysis became

so essential that the first 'Diameter Increment Plot' was laid out in the Tista Valley in 1900, there being nine such plots in the district now furnishing useful information about diameter increment of *sal*, teak, *Juglans regia*, *Michelia lanuginosa*, etc., under different treatments. In Darjiling Division, one such plot is on the Senchal Range (Rambi-5) and another on Tangla Range (Batasi-2). In Kalimpong Division there are 3 such plots on the Kalimpong Range (near Rinkingpong) and 3 on the Pankhasi Range (near Paingaon and Rissum.) In Kurseong Division the only plot is at Adalpur Block in the Sukna Range. There is besides a solitary 'Linear Sample Plot' at upper Babu Kholā, near Bagora, on the Kurseong Range engaged in the study of identification of various species, ecological aspects, growth patterns and succession of vegetation in the natural conditions of forests. The importance of 'Sample Plots' for different species in various localities was soon realized for distinguishing between dissimilar site conditions as also to learn how different treatments influenced plant growth. There are now 49 'Sample Plots' in Darjiling Division, 28 in Kalimpong Division and 33 in Kurseong Division, where numerous experiments with various plant species are being carried on. These consist of study of the growth rate and volume increment per hectare of crop, thinned and unthinned, effect of different grades of thinning, etc. The following table gives the number and total area of various kinds of experimental plots in the district.¹

NUMBER AND AREA OF EXPERIMENTAL PLOTS IN
DARJILING DISTRICT

Type of Plot	Darjiling Division		Kalimpong Division		Kurseong Division	
	No.	Total area (acres)	No.	Total area (acres)	No.	Total area (acres)
Sample Plot	49	15.24	28	13.09	33	19.11]
Diameter Increment Plot	2	1.09	6	4.41	1	0.50
Preservation Plot	8	217.79	3	45.00	7	240.00
Linear Sample Plot	Nil	Nil	Nil	Nil	1	4.50

¹ Source : Silviculturist, West Bengal.

Due mainly to research and development, the role of exotic conifers in the forestry of Darjiling district has become very important. The conifers are dominant only over about 40 sq. miles of forests in between 8,000 ft. and 11,500 ft. Exotic forestry had its beginning with the introduction of *Cryptomeria japonica* in 1845. The mean annual increment of this species of about 15 tonnes per hectare is better than the peak yield of any other species commonly grown in this country. The following table briefly summarizes the growth rate of *Cryptomeria japonica*.

Exotic plants

Age (in yrs.)	Volume per acre (in cub. ft.)	Volume per hectare (in cub. m.)
10	1,200	84.92
15	2,900	205.25
20	4,800	439.72
25	6,700	474.20
30	8,600	601.17
35	10,500	743.12

Against the phenomenal growth rate recorded in the preceding table, the local broad-leaved species yield only 109.72 cubic metres of timber per hectare in 35 years. Experiments with other exotic species have revealed that *Pinus radiata*, *P. douglasiana*, *P. insularis*, *P. elliotti*, and a Chinese plant *P. massoniana*, as well as *Cryptomeria* and *Cupressus cashmiriana* have bright prospects in the Darjiling forests.

The first teak plantation in the district was laid out as early as in 1808 at Bamanpokhri (near Pankhabari) which is 12 km. from Sukna railway station and 24 Km. from Siliguri town. Teak was raised in this plantation by direct sowing and Mr. Leads, the then Conservator of Forests who had served in Burma, introduced the Burmese method of *taungya* cultivation. The temperature range was 3.5°C to 4.4°C and the average annual rainfall 4,750 mm. (190"). The experiments continued up to 1888 when the plantation comprised 209 acres of land. Thereafter, it was suddenly abandoned though it had passed the preliminary test for extension on a larger scale. It is probable that the attention of the authorities was then diverted to the regeneration of *Sal* which was causing anxiety to the foresters of the time.

Teak

A new series of teak plantation was taken up in 1920 at the Sangser Block of Kalimpong Division and in 1941 at Bamanpokhri again besides sporadic efforts elsewhere. Direct sowing and transplanting was abandoned in favour of stump planting. Teak plantations received an impetus after a serious scarcity of *Sal* seeds in 1949 and thereafter teak has been planted more systematically in the valley forests and foothills of Kalimpong, Kurseong and Darjiling Divisions. The growth data collected from the new

series show that at the age of 25, Tukriajhar (near Bagdogra) teak yields 78.58 cubic metres of timber per hectare and Bamanpokhri teak 77.85 cubic metres per hectare. The 1868 and 1872 teak plantations were clear-felled during 1966 and 1967. An idea of the value of teak may be had from the fact that in 1965, 523 cubic metres of timber obtained by clearfelling a 6-acre plot was sold at Rs. 2,11,100.

Medicinal plants

The district is very rich in medicinal plants. To explore the possibility of their cultivation on a commercial scale as well as for scientific investigations on indigenous and exotic medicinal plants, the Government of West Bengal set up in August 1955 a Directorate of Medicinal Plants which started with a 4,200-acre plantation at Rongo, on the India-Bhutan border near the Jaldhaka Hydro-electric Project site in Kalimpong subdivision. Since then the Directorate's activities have extended to Mangpu and Latpanchar plantations. Among the principal plants grown in these plantations are *Rauwolfia serpentina* (which yields a drug base for the treatment of high bloodpressure, insomnia and certain mental diseases), *Piper longum*, *Luvunga scandens*, *Scindapsus officinalis*, *Argyrea speciosa*, *Croten hylum* and *Dioscorea prazeril* (the source of *sapogenin*, so important in the manufacture of cortisone) which grows as a wild climber in these forests. Ten acres have been put under this plant and its yams are likely to fetch a world market. *Solanum khasianum*, *Terminalia helerica*, *T. chebula* and *Asparagus racemosus* have also bright prospects. *Aegle marmelos* is a well-known fruit tree reputed also for medicinal properties of its fruits and bark. *Acacia catechu*, a species of the riverain forests, is another important medicinal plant exploited for catechu. *Ricinus communis* is also cultivated on a small scale. *Cannabis sativa*, famous for its narcotic properties grows wild as a weed in this area. *Andrographis paniculata* considered to be one of the best cholagogues, also grows wild. *Zingiber officinalis*, which is cultivated on a large scale on the hills is sparingly cultivated in the plains. As there is a good demand for ginger in and outside India, cultivation of the same may be intensified. A Swiss pharmaceutical firm is carrying on an extensive research on the *podophyllum* species for treatment of malignant growths like cancer. *Costus speciosus* grows wild and rhizomes are collected regularly and used by the local people as remedy for cough.¹ *Luvunga Scandens* is used in scorpion sting. *Scindapsus Officinalis* is applied externally for rheumatism. *Argyrea speriosa* root is used as tonic and leaves for wounds and externally in Skin diseases. *Croten hylum* is used as a purgative. *Dioscorea prazeri* is used to kill lice. Rongo is today the world's biggest ipecac plantation. The root of ipecac

1 Government of West Bengal—*Proceedings of Symposia*, Calcutta, 1955, p. 118.

(*Cephaelis ipecacuanha* Linn.), originally a native of the humid forests of Brazil, Colombia and Nicaragua, is a source of emetine hydrochloride which is a well-known specific for amoebic dysentery. Currently over 20,000 kg. of ipecac root is being produced at Rongo, Mangpu and Latpanchar per year and the quantity sold so far to pharmaceutical manufacturers in India and abroad is worth about a crore of rupees. During 1962-63 India imported 16,291 kg. of this root at a cost of Rs. 13,71,814. But with the coming of age of the State medicinal plantations, the country has not only become fully self-sufficient in ipecac roots but is exporting them in considerable quantities. Schemes for setting up a few more medicinal plantations during the Fourth Five Year Plan have been drawn up under which cultivation of *Dioscorea prazierii* (from which, among other hormone preparations, the oral contraceptive pill is produced), *Ergot* (from which are manufactured medicines to control haemorrhage after child birth and also to relieve migraine, a kind of nervous headache usually confined to one side of the head), *Algae* and *Solanum khasianum* (from which synthetic hormones such as corticosteroid drugs—which are in great demand—are manufactured), *Carica papaya* (needed in the food processing industry), *Datura stramonium* and *Datura innoxia* (for preparation of atropine and other atropine alkaloids), *Digitalis lanata* (for production of such cardiac glycosides as digoxin and other lanatocids) will be taken up. Cinchona, also a medicinal plant, has been elaborately dealt with in an Appendix to Chapter IV and all that need be said here is that about 800 acres at Mangpu, 900 at Latpanchar and 1,700 at Munsong are under it. Of these three plantations, Mangpu alone earned in 1965-66 a revenue of Rs. 78 lakhs of which Rs. 67 lakhs was in foreign currency. (An Appendix at the end of this chapter gives a complete list of the medicinal plants found in Darjiling district).

Field trials are now in progress to raise food crops, ramie and long-staple cotton in forest plantations. It has been found that during the first two years of laying out a forest plantation, many agricultural crops, such as maize, paddy, cotton and mustard combine well with the forest crop, mainly *Sal*. After these initial years, it has been the standard practice to allow herbs, shrubs, creepers and climbers to grow freely underneath the main forest canopy. Minor forest produce can be introduced as a crop beyond the formative phase of a plantation. In older plantations (5 to 20 years old), turmeric and ginger, both high-yielding crops, have been found very suitable. Ramie and long-staple cotton can also be inter-cropped in forest plantations. The former, a very tough natural fibre, can replace nylon in many industrial uses and has a great internal demand for its strength. The forest department is now raising ramie in a 24-acre plot and believes that an acre will produce 2 to 3 quintals of the fibre. Ten acres have also been put under long-staple cotton (now mainly imported), with an expected yield of a quintal per acre.

Inter-
cropping

Mechanization

Losses in wood harvesting occur by way of leftover stumps, tops, limbs, branches and those shattered in felling, improper log lengths and transportation losses etc. Since these can be largely eliminated through mechanizing logging, heavy crawler tractors with tree knockdown boom stumpers and dozers have been recently introduced with success. Use of gravity and power ropeways, skyline cranes, and mountain tractors are likely to solve the present transportation problems and planning on this line is already in progress. The following are some of the measures that have been introduced to modernize forestry operations in the district.

- (i) A single-track bicable reversible jigback-type ropeway has been constructed to connect Singla Bazar in the Rangit valley to Darjiling town which will go a long way to reduce fuel shortage at the district headquarters. On its way it connects three important tea estates, namely Takvar, Barnesbeg and Singla. While the upward traffic consists of charcoal, timber products, potatoes and other fresh vegetables for the urban population, its spare capacity is utilized for transport of tea. The downward traffic is mostly salt and cereal for the valley and the tea gardens. During summer and autumn, tourists use it as a passenger ropeway by paying between Rs. 700 and 900 as fares per day. It is now proposed to extend it across the Rangit to Jorathan in Sikkim, where there is a hot spring. The estimated cost of the ropeway is about Rs. 25 lakhs of which Rs. 7.53 lakhs was financed by USAID non-project loan. The construction of another 4.4 km. long gravity ropeway connecting Mow, in an inaccessible forest area, with Shamsing, near a railway station, at an estimated cost of Rs. 11 lakhs has been taken up. The Swiss Government has supplied equipments worth Rs. 6 lakhs on credit for the project which will help exploitation of forest produce.
- (ii) One TD-25 tractor is already in use for felling and removal of trees and stumps, raking of soil etc. with much more speed and economy than obtainable through manual means.
- (iii) A Kupfer short-distance skyline crane with cables, accessories and a plumett tractor with trailer is operating in the Kalimpong Division helping transportation of logs and sawn timber up the precipitous slopes to roadsides for surface haulage elsewhere.
- (iv) A Czechoslovakian cableway with the same functions as a skyline crane is also in operation in the Kalimpong Division.

- (v) Prior to the Third Five Year Plan, the length of all forest roads in the Darjiling, Kalimpong and Kurseong Divisions totalled only 351 km. During the Third Plan period, another 29 km. of forest road was built in the Kalimpong Division and further constructions in all the three Divisions have been taken up. Some of these proposed roads are, Labha-Rachila Road, Chunabhati-Lulagaon Road, Samsing Hill Motor Road, Batasi-Palmajua Road, etc.
- (vi) To minimize logging wastes, a temporary logging training centre has been opened up at Sukna under the auspices of F.A.O. both for the employees of the Forest Department and men from trade.

The Annual Report of 1870-71 of the Forest Department stated that protection against fire was "the most important subject we have to deal with and should take precedence of all other matter" and work in this behalf commenced in the Darjiling forests in 1873. Dr. Schlich recommended fire protection everywhere especially in the Terai and the first protective measure came into operation at Sevok and gradually extended elsewhere. In December 1880 the first Fire Protection Rules were framed. After the introduction of fire protection measures, attendant drawbacks began to be noticed in the shape of increased evergreen undergrowth and a consequent falling off in the natural reproduction of *Sal*. It was, therefore, decided in 1914 to allow controlled burning in all the *Sal* forests to assist regeneration. In 1918 a leaf fire was allowed to run through the Sevok block. But this controlled burning did not have the desired effect and was given up in the early fifties. In the upper hill forests of Tanglu and Singalila Ranges in Darjiling Division, the risk of fire is great owing to dense bamboo growth. Successive fires in 1878, 1879, 1882, 1903 and 1909 caused heavy damage to silver fir trees growing between 10,000 and 12,000 feet. Since then fires have been controlled by a fairly efficient system of fire protection along the ridge tops. At present all forests are strictly closed to fire.¹

Firm
protection

It is commonly agreed that a vegetative cover diminishes sheet wash and gullyng. But the efficacy of grass as opposed to trees in controlling erosion by rain-drops and flowing water is in dispute. L. C. King states that in humid temperate regions sod-forming grasses promote the development of smoothly-rounded as opposed to angular ridge crests as the grasses severely inhibit water erosion while they permit creep.² But in Darjiling district smoothly-

Research on soil
erosion and land-
slides

1 Source : *Centenary Commemoration Volume, West Bengal Forests*, Calcutta, 1964. pp. 88-89.
2 L. C. King—"Canons of Landscape Evolution" in the *Bulletin of the Geological Society of America*, Volume 64, Part 2, 1953. pp. 721-51.

rounded ridge crests are almost non-existent. Birot, after Rougerie, says that tropical bunch grasses offer less mechanical resistance to overland flow than to temperate sods and less shelter from the impact of rain drops—especially immediately after a burn—than do tropical evergreen forests.¹

The soil tests conducted so far throw little light on the thickness and extent of residual soil which has an important bearing on soil conservation measures. Though it is easy to find residual soils with a depth of two metres or more, in most cases it contains profile discontinuities and angular fragments testifying to mass movement. Around Darjiling and Ghum the steep grassy slopes are conspicuously smoother suggesting that the small terraces disintegrate with the conversion of forest to grass-land. In other areas, therefore, it would only be natural, that accelerated slumping would begin with *jhum* cultivation or *taungya* method of raising plantations. Grass and agricultural crops, with but a few slender roots penetrating below two feet, can hold a thin accumulation of regolith which develops in a relatively short time but is liable to be removed by a heavy rain or an earthquake. In contrast, the larger and deeper roots of mature trees can retain a much thicker regolith which develops over a relatively longer period. To make an worthwhile study it would be necessary to examine aerial photographs and compare the incidence of soil erosion, slumping, sliding etc. in virgin forests, plantations, terraced fields, anthropogenic grasslands and other areas.

Scientific management of grasslands is based on ecological principles. In Darjiling special soil conservation measures, i.e. those practices which are essential to meet conditions that cannot be corrected by good grazing management alone, are necessary. In regard to grazing in the reserved forests of the district, the general policy of Government is to permit it as far as it does not damage the forests.² As far back as in 1911-12 the Annual Progress Report on Forest Administration in the Presidency of Bengal stated : "The effect of protection from grazing is, generally, very marked improvement in natural regeneration."³ Since then grazing has been controlled for improving the forest growth but not to conserve the soil. Special soil conservation practices for grassland improvement may be grouped as moisture conservation measures, run-off and erosion control practices, closure, re-seeding and fertilizer application, etc. Of these only closure, i.e., elimination of grazing at selected localities has been enforced in the district. Staggered contour trenching, which is very effective in conserving soil and moisture and is practised al

1 Pierre Birot—*Geographic Physique Generale de la Zone Intertropicale* Paris, n.d.

2 A. J. Dash—*op. cit.* p. 138.

3 *Centenary Commemoration Volume, op. cit.* p. 194.

over India for afforestation grassland improvement work, especially on steep slopes and shallow soils, may bear good result in Darjiling. On highly degraded grasslands, re-seeding and fertilization is the quickest method of improvement.¹

The West Bengal Forest School, Dow-Hill, Kurseong, was established in 1907 to impart practical forestry education to subordinate field cadres of the Forest Department, namely, Foresters and Deputy Rangers. To start with, the course was for 6 months only and first batch of students consisted of seven Foresters and Deputy Rangers from Bengal. The Divisional Forest Officer, Kurseong was in charge of the school for the first 3 years. In 1910, a separate whole-time post of an Instructor in the Provincial Forest Service cadre was created and the Divisional Forest Officer, Kurseong became the Director of the school, in addition to his own duties. From that year the duration of the course was increased to 10 months and students from Sikkim, Bhutan, the Andaman Islands, Assam, Bihar and Orissa, also began to be admitted. In 1912 the school had 16 students, 7 of whom were from outside Bengal. Thereafter, the annual admission was increased to 20 which continued for nearly three decades. The minimum academic qualification of an entrant trainee was a pass in the Matriculation Examination and the medium of instruction was English.

The West Bengal
Forest School,
Kurseong

The course begins on 1st November each year and is designed to be of a practical nature, the best part being spent in a close study of the operations in the field during extensive tours covering all types of forests of the State when the students take part in nursery-making, sowing, planting, thinning, road building, minor constructions, etc. These tours were confined to the North Bengal forests till 1938 but since then their scope has been extended to forests in South Bengal. After the completion of the tours the students return to headquarters at Dow-Hill where they stay during the rainy season for their theoretical classes. From 1930-31, the training period was further extended to about a year.

Since June 1944, the Director of the school has become a full-time officer and the annual intake of students, which was only 30 then, has progressively increased to 40 in 1946, 45 in 1955 and 60 in 1965. This necessitated the construction of new hostels in 1962-63 and a new school building in 1964-65. The old school building has since been converted into a museum.

The present curriculum includes silviculture, forest management, botany, engineering, survey, forest utilization, forest protection, forest law and accounts. Besides, special lectures are arranged on working plans, soil conservation, wild life and family planning. The students are also given training in St. John Ambulance Course of first aid and rifle-shooting.

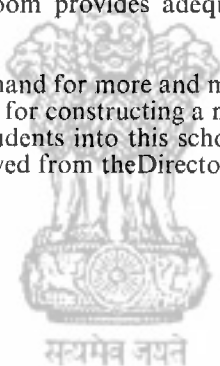
¹ *Proceedings of symposia* : op. cit pp. 12-14.

The school library has a good collection of technical books on forestry and allied subjects as well as on wild life. There is also a museum with specimens of important timbers of India, some geological specimens of interest, various items of minor forest produce, plywood, specimens showing stages in manufacture of paper, matches, stuffed birds, heads and skulls of wild animals, engineering models, etc.

The school herbarium once had nearly 2,000 botanical specimens collected from Sikkim, the Alpine regions of Eastern Himalayas, Andaman Islands, Bihar, Orissa and Assam but half of it was taken away to East Pakistan (now Bangladesh) at the time of partition of the country. The deficit is now being made good slowly.

The school has its own grounds for outdoor games. The well-maintained common room provides adequate facilities for indoor games and recreation.

With a pressing demand for more and more trained forest personnel, there is a proposal for constructing a new hostel and increasing the annual intake of students into this school to 80. (This account is based on a note received from the Director of the said institution.)



APPENDIX

MEDICINAL PLANTS OCCURRING IN DARJILING DISTRICT

Herbs

1. *Achyranthes aspera* (Beng : *Apang*).—Occurs throughout India. Common in Terai and in the lower hill forests, ascending the Himalayas up to 4,000 ft. Root, leaves and seeds are used as digestive and purgative. It is useful in dropsy, snake-bites, hydrophobia and hysteria.

*2. *Atropa belladonna* (Beng : *Belladonna*).—The plant is now being cultivated at the Rongo plantation at altitude 2,500—4,500 ft. Alkaloid 'Atropin' is sedative, antispasmodic and mydriatic in diseases of the eye. It is a valuable antidote in poisoning by opium.

3. *Aconitum ferox* (Beng : *Katbis* ; Hindi and Nepali : *Bish*).—Found in temperate and sub-Alpine Himalayas. Occurs in plenty near Tanglu and Sandakphu area (10,000 to 14,000 ft.). 'Pseudo-aconitine' from tuberous root of the plant is extremely poisonous and is said to be used in leprosy, fever, cholera, rheumatism and diabetes.

4. *Aconitum heterophyllum* (Beng : *Atibis* ; Nepali : *Bikhma* ; Hindi : *Atis*).—Common in the sub-Alpine and Alpine zones of the Himalayas and near Sandakphu and Tanglu. Its root contains atisine, an alkaloid. It is said to be used as antipyretic, against cough, dyspepsia and diarrhoea and as an aphrodisiac.

5. *Aconitum laciniatum* (Beng : *Bis* ; Nepali : *Kalo-bikhmo*). Common near Sandakphu and Phalut. Use not specifically known but evidently poisonous, and one of the sources of *Calcutta Bish*.

6. *Aconitum luridum* (Beng : *Bis* ; Nepali : *Bikh* ; Hindi : *Mahoor*). —Occurs in Eastern Himalayas (alt. 12,000 to 14,000 ft.) and near Tanglu and Sandakphu. Root is considered to be poisonous by local people.

*7. *Aconitum napellus* (Beng : *Nepalibis* ; Nepali : *Bikh* ; Hindi : *Mithazahar*).—Found in temperate Alpine Himalayas near Sandakphu. It is the most important medicinal aconiet. The root contains aconitine, aconine and benzaconine used as anodyne. It is also a cardiac sedative.

* The list, classified into four categories, namely herbs, shrubs, trees and climbers, has been compiled by the Director of Medicinal Plants, West Bengal. The entries marked with an asterisk are of proved efficacy, while the others are traditionally believed to have medicinal properties.

8. *Aconitum palmatum* (Beng : *Patabis*; Nepali : *Bikhma*).— Occurs in temperate Himalayas (from altt. 8,000 to 11,000 ft.) and common at Tanglu and Sandakphu. Root contains alkaloid palmatisine. It is said to be used in diarrhoea and rheumatism, fever and also as a tonic. Power from the dried root is commonly used by the local people on cuts wounds.

9. *Aconitum Spicatum* (Beng : *Bish*; Nepali : *Bikh*).— Found in the Alpine Alpine xone of the Himalayas and around Sandakphu. It contains bikhaconitine. Uses stated to be same as of *A. laciniatum*.

10. *Aconitum uncinatum* (Nepali : *Bikh*).—Occurs in temperate and sub-Alpine Himalayas (alt. 9,000 ft.) and also near lachoong. It is a large type of aconite used as anodyne and sedative.

11. *Acorus calamus* (Beng : *Bach*).—Grows wild and is also cultivated at altitudes 3,000 to 6,000 ft. Root and rhizomes are used in coughs and cold. It also stops vomiting and is said to be used as a preventive against malaria.

12. *Alpinia galanga* (Beng : *Kuliajan*).—Abundant in the moist Terai belt of Darjiling. The rhizome is used in fever and rheumatism, etc.

13. *Ammi majus*.—Introduced from Africa it is now being cultivated at the Government plantation at Rongo. A crystalline active principle, 'ammordin', has been isolated from the fruits of the plant which is useful for the treatment of leucoderma.

14. *Ammi visnaga*.—Introduced from abroad, it is now being cultivated at the Rongo plantation. It is useful against pecton's bronchial asthma. 'Khellin' (0.1 %) and Khellin Glycosides (0.3 %) are obtained from the fruits. Active principle 'Ammordin', which is used in leucoderma, is also available from the plant.

*15. *Artemesia vulgaris*. (Beng : *Nagdamani* ; Nepali : *Titapat*).—Abundant all over Darjiling and Sikkim Himalayas. Whole plant and leaves are used for digestion, rheumatism, spasmodic affections, epilepsy, dyspepsia, nervous troubles, mental exhaustion and also as anti-convulsion and anti-fertile drugs.

16. *Asparagus racemosus* (Beng : *Satamuli*).—Common in the district. Root and leaves are used as refrigerent and are also useful in amenorrhoea, dyspepsia, dysentery, nervous break down, impotency and as preventive in small-pox.

17. *Aveus sativa* (Beng : *Jai*).—Cultivated widely in Darjiling district. Whole plant is used in the form of tincture in nervous strain and diabetes.

18. *Amomum subulatum* (Beng : *Bara-ealach*).—Abundantly cultivated between 2,000 and 4,000 ft. throughout the district including Rongo plantation. Seeds are used as stomach stimulant after attack of cholera and also in gonorrhoea. Also used as a gurgle for teeth and gums and is efficacious as diuretic with seeds of melon.

*19. *Cannabins sativa*.—Cultivated all over the district up to 3,500 ft. *Ganja* is obtained from the leaves and flowers which is narcotic in reaction.

*20. *Cephalis ipecacuanha* (English : *Ipecac*).—It is a South American (Brazil, Columbia and Nicaragua) plant introduced into India a little over 100 years ago. It is now being extensively cultivated in the Government medicinal plantations. Ipecac tinctures and emetine are processed from the root and are used against amoebic dysentery and also as an emetic in cough mixtures.

*21. *Chenopodium ambrosoides* (Indian variety).—Cultivated at the Rongo plantation at an altitude 2,000—3,000 ft. Volatile oil contains 5% aldehydes and ketons. 'Ascaridole' absent unlike in American variety with presence of 1% phenols. In France and Southern Europe it is reported to be used for catarrh and humoral asthma.

*22. *Cleviceps purpurea* (Beng : *Ergot*).—Valuable fungus now being cultivated at the Rongo plantation. It grows as parasite on rye plant. Valuable alkaloids, e.g. Ergotamine, Ergotoxin, etc., are obtained from this fungus. These are applied in female diseases and also during delivery for stopping excessive bleeding.

23. *Curculigo orchioides* (Beng : *Talmuli*).—Common in sub-tropical Himalayas and on hill-sides (alt. 6,000 to 8,000 ft.). Used in asthma, piles, jaundice, diarrhoea, impotency, nervous debility, colic and gonorrhoea.

24. *Curcuma zedoaria* (Beng : *Sati*).—Common in the Terai forests. The rhizomes are used to cure leucorrhoeal and gonorrhoeal discharges and skin diseases.

*25. *Datura fastposa* (Beng : *Dhutura*).—Occurs throughout India ; very common in Darjiling district up to 7,000 ft. Root, seeds and specially leaves are used in rheumatic swelling, sciatica, lumbago, neuralgia and also for asthmatic troubles.

*26. *Digitalis lanata*.—Grows wild in the Alpine Himalayas and is now being cultivated at Rongo plantation. From leaves valuable alkaloids, e.g., 'digoxin' 'digitalin', etc., are obtained which are used in heart disease.

*27. *Digitalis purpurea*.—It grows wild in Darjiling district and is also cultivated at Rongo plantation. 'Digitalin' is obtained from the roots and leaves which is used in heart troubles.

28. *Drymaria cordata*. (Beng : *Nasya-pati* ; Nepali : *Avijal*).—It is very common and available all over the district from 2,000 to 7,000 ft. Leaves and plants are used by local people in cold, asthma, fever, pneumonia and also for dog-bites.

29. *Eleusine cornacana* (Beng : *Marua* ; Nepali : *Kodo*).—Cultivated in the hills, all over the district and also around it. The whole plant is used for making liquor by fermenting. It is stimulant, invigorating and is used also as a poultice and mild purgative.

30. *Elsholtzia planda*. (Beng : *Pahari Tulsi*).—In the Eastern Himalayas it is abundant as low gregarious herbs in open hill sides of forests between 3,000 and 6,000 ft. The whole plant and leaves are used in stomach troubles and vomiting tendencies. Leaf-juice is also externally used for old sores and eczema.

31. *Equisetum debile*.—Available at Darjiling proper. The herb has cooling effect in cases of gonorrhoea.

32. *Euphorbia latryst*.—The plant is now being cultivated at the Rongo plantation (alt. 2,000—4,500 ft.). The latex of the plant is supposed to be useful as a purgative.

33. *Hedychium spicatum*. (Beng : *Karpur Kachuri*).—Found in wet places in the Terai. The root and rhizome are used as stomachic and as a stimulant tonic.

34. *Centella asiatica* (Beng : *Thankuni* ; Nepali : *Kalhenyok* ; Hindi : *Brahmamanduki*).—Occurs throughout India in the plains as well as on the hills up to 2,500 ft. Stem and leaf contains glycoside and volatile oil. Leaves are taken as tonic and for improving memory. It is stated to be useful in syphilitic skin disease both internally and externally, while the whole plant is considered efficacious in skin diseases, leprosy and nervous and blood ailments.

35. *Hydrocotyle javanica* (Beng : *Pahari-thankuni*).—Very common in the district. In Eastern Himalayas it is found from 2,000—8,000 ft. altitude. The leaf is stated to give relief in throat pain, dysentery and pneumonia.

*36. *Hyoscyamus niger* (Beng : *Khorasani jowan*).—Occurs in temperate Western Himalayas (alt. 8,000—11,000 ft.) In the Eastern Himalaya it is cultivated in the Rongo plantation. The whole plant is used as a mixture for pain in the uterus, nervous d . . . mnia, asthma and for eye troubles.

37. *Ins nepalensis* (Beng : *Inis* ; Nepali : *Koor*).—It is common in the district (alt. 6,000—10,000 ft.) and abundant near Tanglu. The root is useful in biliary troubles.

38. *Kaempheria rotunda* (Beng : *Bherichampa*).—Found throughout India and cultivated at lower elevations in Darjiling district. The root and timber are said to be used in dropsy.

39. *Kalanchoe spathulata* (Beng : *Pathar Koni* ; Nepali : *Pathar Koni* ; Hindi : *Haiza*).—Occurs in tropical Himalayas including Darjiling district at 1,000 to 4,000 ft. The leaf is said to have efficacy against cholera, and is sometimes applied on burns and wounds.

40. *Lycopodium clavatum*.—Available at Darjiling proper. It is antiseptic, anti-diuretic and is used for kidney diseases.

*41. *Mentha arvensis*.—It is cultivated at the Gairibas nursery of Rongo plantation (2,500 ft.). It is used as a good expectorant ingredient in fever and bronchitis.

*42. *Mentha piperita* (Bengali and Nepali : *Pipermint*).—It is cultivated in the Rongo plantation. It is useful as a good expectorant ingredient in fever and bronchitis.

43. *Mentha viridis* (Bengali and Nepali : *Pudina*).—It is found in Garhwal and Darjiling. Leaves and flowering spikes are used in fever and bronchitis by local people.

44. *Ocimum kilimandscharicum* (Bengali : *Karpur Tulsi*).—Introduced from Africa, it is cultivated in the Rongo plantation (2,500—3,500 ft.). Volatile oil from the leaves yields a heavy amount of camphor.

45. *Ophiopogon intermedius* (Beng. *Piyaji-murba*).—Found on the temperate Himalayas (alt. 5,000—9,000 ft.) and is abundant on moist soil around Senchal Lake, near Darjiling. The tuber is used in dropsy.

46. *Oxalis corniculata* (Beng : *Amrulsak*).—Available throughout the warmer parts of India. In Darjiling district, it is found between 6,000 and 7,000 ft. The leaf-juice is used in the treatment of boils and dysentery. It is believed that it improves the appetite and digestion in dyspeptic patients.

47. *Papaver somniferum* (Beng., Nepali and Hindi : *Afim*).—Occasionally, it grows wild in the warm, lower elevations of the district. The latex (opium) from unripe fruits is highly poisonous. Alkaloid morphine is used as a hyponic drug in relieving pain and in preventing abortion. Its cultivation without proper permit from the Government is punishable under the law.

48. *Piper longum* (Beng. *Pipul*).—It is found throughout the warm regions of India and the foot-hills. The root and fruit are considered to be digestive and are used in rheumatism, asthma, cough, leprosy, abdominal enlargements, gonorrhoea, piles and spleen complaints.

*49. *Podophyllum emodi* (Beng. : *Papra*).—Reported from Darjiling Himalayas (alt. 9,000—14,000 ft.) around Sandakphu and Phalut but is more common in Western Himalayas. The rhizome contains resins with podophyllotoxin, podophylloresin, picropodophyllin, etc., used in chol-cath vermifuge. The resin obtained from its rhizome is used in superfloral epitheliomatosis, laryngeal papillomata venereal wart, granuloma inguinalea, etc. Because of its efficacy against certain types of cancer, its experimental cultivation has been taken up in the Rongo plantation.

50. *Polypodium ouercifolium*.—Grows as epiphytes on the middle-hill forests of Darjiling. Leaves are used in liver troubles and dyspepsia.

51. *Potentilla fruticosa* (Nepali : *Chinyaphal*).—Occurs at high elevations (12,000 to 16,000 ft.) in Sikkim-Darjiling Himalayas. The leaf infusion is used as an astringent, occasionally as a substitute for tea in India. In Eastern Europe and Asia, it is said to be used as a household remedy in arthritic disorder, menstrual complaints and as a uterine sedative.

52. *Potentilla fulgens* (Beng. : *Bahuitara* ; Nepali : *Chiriya phal*).—Found on the temperate Himalayas. In Sikkim and Darjiling it is available between 7,000—13,000 ft. The root is said to be efficacious against diarrhoea.

53. *Pouzolzia hirta* (Beng : *Pathura Harjora*).—Common over rocks in the Terai region. The root is useful in dislocation and fracture of bones.

54. *Pratia begonifolia*.—Found in the Eastern Himalayas (alt. 2,000—7,000 ft.) and also in Darjiling. The root and the whole plant are said to be useful in dysentery and asthma.

55. *Rubia cordifolia* (Beng : *Manjista*).—Found throughout Eastern Himalayas up to 8,000 ft. The root is used in irregular monthly courses and other troubles of women.

56. *Rumex nepalensis* (Beng : *Pahari Palang*).—Abundant in Darjiling district and Sikkim (alt. 6,000—7,000 ft.). Root and leaves are supposed to cure burning sensation.

57. *Saccolobium papillosum* (Beng : *Rasna*).—Found in lower hill forests in Terai and also near Darjiling town. The root is used in rheumatism.

58. *Bergenia ligulata* (Beng : *Palrabedi/Pathartore/Patharchari* ; Hindi : *Pakhanbed*).—Occurs in temperate Himalayas (alt. 7,000—10,000 ft.) including Darjiling. The root contains gallic acid, tannic acid (14.2%), glucose (5.6%), mucilage, wax, etc. It is used as a tonic in fever, diarrhoea and is also applied to boils.

59. *Scindapsus officinalis* (Beng : *Bach*).—Common on forest trees in the outskirts of Darjiling town. The bark and fruits are useful in diarrhoea, asthma and rheumatism.

60. *Sonchus arvensis* (Beng : *Banpalang*).—Wild as also cultivated, it is available throughout India up to an alt. of 8,000 ft. Local use of the whole plant is said to cure jaundice.

*61. *Swertia chirata* (Beng : *Chirata*).—Common in Darjiling and Sikkim near upper hill forests. Root and whole plants are used in fever, acidity and bilious dyspepsia. It is very useful in skin disease as a bitter and laxative tonic.

62. *Taraxacum officinali* (Beng : *Patachunki*).—Found throughout the Himalayas (alt. 1,000—18,000 ft.) and common in temperate and cold regions. The root is used in dyspepsia, chronic hepatic infections and jaundice.

63. *Valeriana hardwickii* (Beng : *Saru Tagor* ; Nepali : *Chammaha*).—Noticed in temperate Himalayas and also common in Darjiling and Sikkim near middle forests. The root is used for suppression of urine, epilepsy and headache.

*64. *Zingiber officinali* (Beng : *Ada*).—Available throughout India and cultivated in the lower elevations of Darjiling district. The root and tuber are said to be useful in dropsy.

Shrubs

1. *Abutilon indicum* (Beng : *Thampi*).—Grows at altitudes up to 4,000 ft. Root, leaves and flowers are said to be useful in leucoderma.

*2. *Adhatoda vasica* (Beng : *Basak* ; Nepali : *Aswin*).—Found in the Terai and Duars areas. The leaves are used as febrifuge and expectorant.

3. *Astilbe rivularis* (Beng : *Jharnaphul*).—Occurs in Lloyd Botanic Garden, Darjiling. The root is useful for prolapsus of the uterus and haemorrhage.

4. *Berberis aristata* (Beng : *Daru-haridra* ; Nepali : *Chitra*).—Found between 6,000—10,000 ft. The root-bark and fruits are used in stomachic and antepioidic troubles.

5. *Callicanra macrophylla* (Beng : *Baramala* ; Nepali ; *Sumali*).—Found near Terai forests of the district. Local people use the bark in rheumatism and gonorrhoea.

6. *Calotropis gigantia* (Beng : *Akanda*).—Abundant in the plains and in the foot-hills up to 2,500 ft. The latex is used in skin diseases and rheumatism and the bark is used as an anti-spasmodic.

7. *Cassia accidentalis*.—Found in the lower and middle hill forests. The leaves are used as expectorant.

8. *Citrus aurantifolia*.—Occurs in hot valleys along the foot of the Himalayas. The fruit is used as carminative.

*9. *Citrus lemon*.—The fruit is used as carminative.

10. *Citrus maxima*.—The fruit is used as a carminative.

11. *Citrus medica* (Beng : *Buno-Gorak-Nebu*).—The fruit is used as a carminative.

12. *Citrus reticulata* Blanco.—Found in hot valleys along the foot of the Himalayas. The dried outer portion of the skin of the fruit is used in dyspepsia and general debility.

13. *Clerodendron infortunatum* (Beng : *Chetu* ; Nepali : *Chitu*).—Found in the Terai forests. The leaves are used as anthelmintic, emetic and febrifuge.

14. *Coffea arabica* (Beng : *Coffeae*).—Found in the Rongo plantation (alt. 4,000 ft.). The alkaloid caffeine obtained is stimulant to the central nervous system.

15. *Daphne cannabina* (Beng : *Pahari Sone* ; Nepali : *Kagate*).—A common shrub in the middle hill forests of Darjiling. The root is used as an antidote in diarrhoea and vomiting.

*16. *Datura metel*.—Found in the lower middle of forests of the district including Rongo. The seeds are used as anodyne, narcotic and antispasmodic.

17. *Desmodium Pulchellum* (Beng : *Bara-salpani* ; Nepali : *Sarkimu*).—Found in the Terai forests up to 2,000 ft. The bark is useful in haemorrhage and diarrhoea and the flowers in biliousness.

18. *Dichora febrifuga* (Beng : *Paharivasak* ; Nepali : *Basak*).—Found in the district up to an altitude of 6,000 ft. The root is useful as emetic and febrifuge. Yields the important alkaloid 'dichonin'.

19. *Euphorbia nerifolia*.—Found in lower elevation of the district. The leaves are useful in infective hepatitis in infants.

20. *Flemingia congesta* (Beng & Nepali : *Batesi*).—Abundant near *Sal* forests of the district up to 4,000 ft. The leaves and bark are useful for external use in ulcer and swellings.

21. *Glycosmis pentaphylla* (Beng : *Ashseora* ; Nepali : *Bannimbu*).—Widely distributed in the plains as well as on the hills. (alt. 1,000 to 7,000 ft.). The wood, leaves and fruits are used in snake-bite, throat trouble and diphtheria.

22. *Leea macrophylla* (Beng : *Dhol-Samudra* ; Nepali : *Bylyettra*).—Abundant in the district. The root-tuber is used in skin diseases.

23. *Marsdenia roylei* (Beng : *Rai-mukula* ; Nepali : *Bahuni*).—Found in the district around 5,000 ft. The root is used in gonorrhoea.

24. *Malastoma malabathricum* (Beng : *Lata-tulasi* ; Nepali : *Tulasi*).—Found in the lower and middle hill forests of the district. The leaves and roots are useful in indigestion and the flowers are used as a sedative in piles.

25. *Mussaenda frondosa* (Beng : *Nag-balli* ; Nepali : *Asari*).—The root is used in jaundice and the flowers as a diuretic.

26. *Pavetta indica* (Beng : *Kukur-chura*).—Available in the Terai forests of the district. The root and leaves are useful in visceral obstruction and in dropsy.

27. *Polygale arillata* (Beng : *Nepali-kanti*).—Found in the district between 2,000 and 6,000 ft. The root is used as a purgative and in febrifuge, tuberculosis.

28. *Rauvolfia canescens*.—Cultivated in the Rongo plantation. The leaves and roots are useful in blood-pressure.

*29. *Rawolfia serpentina* (Beng : *Chandra*).—Cultivated in the Rongo plantation. The root is soothing and reduces blood-pressure. Alkaloid rawalfin, serpentine etc. are obtained.

30. *Rubus ellipticus* (Beng : *Gachh strawberry* ; Nepali : *Asayloo*).—Occurs between 2,000 and 7,000 ft. The root is used in colic plains.

*31. *Solanum indicum*.—Cultivated in the Rongo plantation. The root is useful as an expectorant.

*32. *Solanum khasianum*.—Cultivated at the Rongo plantation. The seeds yield solasapdin.

33. *Uraria lagopodioides*.—The seeds are useful as a tonic.

34. *Uraria picta* (Beng : *Sankarjata* ; Nepali : *Dabra*).—Found in the Terai forests of the district. The fruit is useful in sore-mouths of children and the whole plant is an antidote to snake-bite.

35. *Viscum album* (Beng : *Mijlto* ; Nepali : *Harchur*).—Found as a semi-parasite on trees in the lower middle forests (5,000—9,000 ft.) The whole plant is used as laxative, in lumbago, piles, etc.

36. *Woodfordia floribunda* (Beng : *Dhaiphul* ; Nepali : *Daheri*).—Found near the Tista valley and in Terai forests up to 5,000 ft. The flowers are useful in dysentery.

37. *Zanthoxylum alatum* (Beng : *Nepali-Dhanea* ; Nepali : *Tomru*).—Found between 2,000 and 6,000 ft. The fruit is useful for its antityphoid ingredients.

Trees

1. *Abies webbiana* (Beng : *Abies/Talispatha* ; Nepali : *Gobra salla*).—Abundant in the district from 8,000 to 12,000 ft. The leaves are useful as carminative, expectorant and stomachic.

2. *Alstonia scholaris* (Beng : *Chhatim*).—Common in the Terai and Duars of Darjiling. The bark and root are used as a tonic, anthelmintic and stimulant (in fever and skin diseases).

3. *Azadirachta indica* (Beng : *Nim*).—Common in the plains and the Terai forests. The leaves are used as an antiseptic, in purification of blood and febrifuge.

4. *Bauhinia variegata* (Beng : *Rakta Kanchan* ; Nepali : *Taki*).—Common in the lower hill forests up to 2,000 ft. The bark and leaves are useful as alternative tonic, astringent, in ulcers, scrofula, etc.

5. *Betula utilis* (Beng : *Bhujapatra* ; Nepali : *Phuspat*).—Found in the district between 10,000 and 12,000 ft. The bark is used as carminative and antiseptic.

6. *Cedrela toona* (Beng : *Toon-gachh* ; Nepali : *Toon*).—Found on the lower hill forests of the district up to 3,000 ft. The bark is used as astringent and in chronic dysentery.

7. *Cedrus libani* (Beng : *Deb-dara*).—Found on the foot-hills of the district as also in Kumaun. The wood-oil is carminative and diuretic.

*8. *Cinchona ledgeriana* (Beng : Cinchona or Quinine).—Cultivated in the cinchona plantations of the district (1,000—5,000 ft.). The bark yields quinine which is very efficacious in malarial fever.

*9. *Cinchona officinalis* (Beng : Cinchona or Quinine).—Occurrence and use are as in the preceding entry.

*10. *Cinchona succirubra* (Beng : Cinchona or Quinine).—Occurrence and use are as in the preceding entry.

*11. *Cinnamomum tamala* (Beng : *Tejpata* ; Nepali : *Chota Sinkoli*).—Found between 3,000 and 5,000 ft. The leaves are stimulant and used in rheumatism and diarrhoea.

12. *Dillenia indica* (Beng : *Chalda* ; Nepali : *Phamsikol*).—Abundant in the Terai forests of the district. The fruits are laxative and are used as a cough mixture ; the leaves are useful in dysentery.

*13. *Eucalyptus globus*. Cultivated at the Rongo plantation. Eucalyptus oil is obtained from the leaves.

14. *Evodia roxburghiana* (Beng : *Pit Kanak*).—Abundant in the district. The root is used for improving complexion and the fruits as stomachic.

15. *Ficus cunia* (Beng : *Togidumur* ; Nepali : *Khaniun*).—Common in the district up to 2,000 ft. The root-bark is useful in leprosy.

16. *Fraxinus floribunda* (Beng : *Pahari Jui* ; Nepali : *Kangsu*).—Found in temperate and sub-Alpine region of the district. The leaves are useful as purgative.

17. *Gynocardia odorata* (Beng : *Chalmugra* ; Nepali : *Kadu*).—Found in the middle and lower hill forests. Oil from the seeds is used in leprosy and other skin diseases.

18. *Hymenodictyon exelsum* (Beng : *Kukur Kot* ; Nepali : *Latijhora*).—Abundant in the rocky parts of the district. The bark contains 'hymenodictine' which is used in fever.

19. *Lindera neosiana* (Beng : *Gandhu daru* ; Nepali : *Seltimur*).—Found in the temperate zone. The bark and fruits are aromatic and carminative.

20. *Litsea sebifera* (Beng : *Kukurchita* ; Nepali : *Kawala*).—Common in lower hill forests of the district up to 3,000 ft. The fruits yield alkaloid 'laurotetanine' which is anti-diuretic, anti-aphrodisiac.

21. *Mellotus philippinesis* (Nepali : *Sinduria*).—Common in lower hill forests of the Terai. The fruit is anthelmintic and purgative.

22. *Mesua ferrea* (Beng : *Nagkesar*).—Found in the Terai forests of the district. The flowers are useful having astringent and stomachic properties.

23. *Micromelum pubescens* (Beng : *Gandha-soom*).—Abundant in Darjiling proper. The bark and root are useful in T. B. cases.

24. *Morus indica* (Beng : *Tunt* ; Nepali : *Kimba*).—Found in the Terai region. The root is used as anthelmintic and astringent.

25. *Phyllanthus emblica* (Nepali : *Amlaki*).—Common in the lower hill forests up to 3,000 ft. The flower and fruits are useful in diarrhoea, dysentery, typhoid, cholera and snake-bite.

26. *Pinus longifolia*.—Found in the district above 6,000 ft. Terpentine oil is obtained from its resin.

27. *Prunus puddum* (Beng : *Padmak* ; Nepali : *Kongki*).—Found in the district between 5,000 and 8,000 ft. The bark and wood are used for preventing abortion.

28. *Rhododendron arboreum* (Beng : *Baras* ; Nepali : *Guras*).—Found in the temperate Himalayas between 5,000 and 11,000 ft. The flowers and petals are used in hill diarrhoea.

29. *Salmalia malabarica* (Beng : *Simul* ; Nepali : *Sangluking*).—Abundant in the Terai forests. The bark and root are useful in piles.

30. *Schima wallichii* (Beng : *Cheloni* ; Nepali : *Chilauna*).—Abundant in the district between 2,000 and 6,000 ft. The bark is used in gonorrhoea by local people.

31. *Shorea robusta* (Beng : *Sal* ; Nepali : *Tatural*).—Found in the Terai region. The resin is used as astringent.

32. *Symplocos racemosa* (Beng : *Lodh* ; Nepali : *Chumlane*).—Found in the Terai up to 2,500 ft. The bark is used as astringent in stomach troubles.

33. *Taxus baccata* (Beng : *Lichujhau*).—Found near the temperate Himalayas between 6,000 and 11,000 ft. The fruit is carminative and expectorant ; the leaves are poisonous.

34. *Tuglan regia* (Beng : *Akrot* ; Nepali : *Okhar*).—Common in the middle hill forests between 3,000 and 8,000 ft. The bark is used as anthelmintic and detergent.

35. *Wrightia tomentosa* (Beng : *Dudh-Karabi* ; Nepali : *Karinghi*).—Common in the Terai up to 4,000 ft. The root-bark is useful in renal complaints, menstrual troubles and snake-bites.

Climbers

1. *Bauhinia vahlii* (Beng : *Chehur* ; Nepali : *Borla*).—Very common on tall trees in the Tista valley up to 3,000 ft. The seeds are useful as tonic and aphrodisiac.

2. *Cissampelos pareira* (Beng : *Akaleja* ; Nepali : *Batulpani*).—Occurs in Terai forests climbing profusely on trees. The root, leaves and bark are useful in dyspepsia, diarrhoea and dysentery.

3. *Dioscorea prazerii*.—Cultivated at the Rongo plantation. A useful alkaloid cortison is obtained from the bulb of the plant.

4. *Dicentra thalictrifolia* (Beng : *Lata-gulfa*).—Found near the temperate Himalayas between 4,000 and 8,000 ft. The root is useful for stopping amenorrhoea.

5. *Entada scandens* (Beng : *Galagachh* ; Nepali : *Taktokhajim*).—Available in the middle hill forests. The seeds are useful for pain and weakness and the bark is used in skin diseases.

6. *Hedyotis scandens* (Beng : *Thaolanlata* ; Nepali : *Barkrelara*).—Found near tropical and sub-tropical Himalayas. The root is used in colic pain.

7. *Paederia foetida* (Beng : *Gandhavadulia* ; Nepali : *Berilahara*).—Found in Central and Eastern Himalayas. The leaves are nutritive for the sick and convalescent. Also used in rheumatism and toothache by local people.

8. *Stephania hernandifolia* (Beng : *Nimuka* ; Nepali : *Tambarki*).—Common on trees of the Terai forests. The root, bark and leaves are used in fever, diarrhoea, urinary diseases and dyspepsia.

9. *Tinospora cordifolia* (Beng : *Gulanchara*).—Common in the Terai forests. The root is used as febrifuge and in loss of vitality.

CHAPTER IV

INDUSTRIES

Old-Time Industries

The old-time industries of the district are mainly village handicrafts supplying the simple needs of a rural population. The most important of them is weaving,—it being traditional for the hill people to weave coarse cotton cloth for themselves. Handloom weaving is also practised in the *Terai*. Wool weaving has also a similar background, the products enjoying some demand in the local market. Lepcha cloths with a white or red background and red and blue or yellow and blue stripes were once a favourite with many visitors to Dārjiling. Raw wool from Tibet formed the main ingredient of these products. The industry is languishing at present due to scarcity of cheap raw wool, the import of which has stopped since the Chinese occupation of Tibet. Manufacture of blankets is another cottage industry of long standing, which has also suffered because of the stoppage of imports of raw materials from Tibet. Under the supervision of official and non-official organizations, most of these handicrafts have since developed on a larger scale, and this subject is appropriately dealt with under the Section 'Cottage Industries'.

The making of *kukris* (Nepali knives), simple tools, and bamboo products (such as baskets, mats, *ghoomes*, etc.) as well as of pottery articles constitutes the other traditional cottage industries worthy of mention. *Kukris* are manufactured at Ghum while the other products are turned out all over the district. Various training centres have been opened to help many of these industries on a scientific basis.

Reasons for their decay

Most of the old-time industries being of an artistic nature, the sale of their products depends largely on the tourist traffic, which, by itself, does not ensure a constant offtake. Such sales can be expected only at certain periods of the year and unless sales-promotion is properly organized, the turn-over is likely to be poor. Some of the industries like wool-weaving, coppersmithy, metal-work, cotton weaving, etc., are experiencing difficulties for non-availability or short supply of raw materials; and for other industries, that can run on electricity, the supply of power is still a problem. The complete severance of trade with Tibet since 1962 has adversely affected local industries in general and particularly those which depended on that country for the raw materials.

Power

The Darjiling Municipality is the pioneer in supplying electricity not only in West Bengal but can also claim to be one of the first in India to have an electricity-supply undertaking. It set up its own plant and started generating power as far back as 1897. Its present licenced area covers Darjiling town as also a number of neighbouring tea gardens. The other private licensee

in the district is the Kalimpong Electric Supply Co., which commenced distribution of electricity in 1938. Another erstwhile licensee, the Kurseong Hydroelectric Co. Ltd., which distributed power in Kurseong and Siliguri under two separate licences, was taken over in 1953 by the Electricity Development Directorate of the Government of West Bengal and was subsequently merged with the West Bengal State Electricity Board on 1st May 1955. As soon as Government undertook the responsibility for power supply, steps were taken for drawing up schemes for generation, transmission and distribution of electricity in the district. The Kurseong Hydroelectric Power Station was strengthened, and this was followed by the installation of a small hydro-generating station at Bijanbari.

With a view to exploiting the immense potentiality of the water power of the Jaldhaka river, a scheme was prepared and implemented by the State Electricity Board, under which a medium-sized hydroelectric generating station was set up at Paren in Bhutan, a little away from the Darjiling border, and it started supplying electricity from 31st March 1967. Under the first phase of the scheme about 27 Mw will be generated, which is expected to be increased ultimately to 36 Mws under the second phase. Incidentally, although the area consisting of the districts of Darjiling, Jalpaiguri and Koch-Bihar, has a tremendous hydroelectric potential, only a few small hydroelectric stations, fed by hill streams, have been in operation in Darjiling district for a long time, meeting the demands of neighbouring tea gardens. The Jaldhaka Project of the State Government plans to harness the huge water potential of the Jaldhaka river for generation of power on a much bigger scale. It will supply electricity not only to the various towns of North Bengal but will also cater to the needs of other large consumers including tea gardens.

Jaldhaka Project

To meet the growing demands of the Darjiling area, which cannot be satisfied by the Jaldhaka Project alone, the Little Rangit Scheme has been implemented to generate additional power. It has set up a hydroelectric station near Bijanbari in Pulbazar Police Station for tapping the Little Rangit river, and supplies power to the rural areas of Bijanbari, Sukhiapokhri, Jore Bungalow and Takdah.

Little Rangit Scheme

At present, distribution lines have been drawn over long distances to ensure power supply to a large number of tea estates. Besides, a number of rural areas around Siliguri, Kurseong and Darjiling, namely, Matigara, Bagdogra, Sonada, Sukhiapokhri, Bijanbari, Pulbazar and Takdah, have been electrified by the State Electricity Board.

The Government of India had decided that at least a lakh of villages in the whole country, being about 20 per cent of the total number, should be electrified by the time of Gandhiji's Birth

Rural Electrification

Centenary in October 1969. The number of villages electrified in Darjiling district was 35 up to March 1965, and 45 in March 1967. With the commissioning of the Jaldhaka and other power projects, more rural areas have got electricity which, in its turn, will lead to the resuscitation of village industries and an overall betterment of the economy of the district. The Lead Bank Survey Report of Central Bank of India (1971) tells us that in Darjiling district 155 villages out of a total of 536, have been electrified up to 1970-71.

The following statement gives figures, in kilowatt hours, of electricity generated and consumed in the district in 1964-65 and 1965-66.

	1964-65	1966-67
Energy generated	1,42,90,018	1,68,79,050
Energy consumed	1,32,30,033	1,37,62,624
(i) Industrial consumption	33,92,564	32,02,401
(ii) Non-industrial consumption	98,37,469	1,05,60,223

The following statement furnishes data relating to the sale of electricity to ultimate consumers in the Darjiling district during 1962-63 to 1964-65. (The figures are in kilowatt hours).

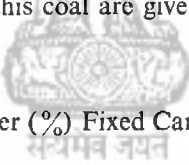
Year	Agency	Total units sold	Industrial consumption	Non-industrial consumption
1962-63	State Electricity Board	43,63,821	15,16,729	28,47,092
	Private	70,79,745	7,40,014	63,39,731
1963-64	State Electricity Board	53,79,220	21,47,581	32,31,639
	Private	77,60,520	9,39,920	68,20,600
1964-65	State Electricity Board	57,45,277	23,42,285	34,02,991
	Private	74,84,756	10,50,278	64,34,478
1965-66	State Electricity Board	62,01,286	22,65,382	39,35,904
	Private	75,61,338	9,37,019	66,24,319

The mineral products of the district mainly consist of coal, iron and copper, the exploitation of which does not appear to be a very profitable proposition. Most of the hilly areas lack modern means of transport, because of which the mineral resources of the district have not yet been properly developed.

Industries & Manufactures of the District

Mining & Heavy Industries

The coal seams extend for a distance of about 64 km. (40 miles) from the Balasan river on the west to the Bhutan border on the east. The entire coal belt was caught up in the folding movement during the upheaval of the Himalayas. The coal is, therefore, found mostly in a powdery form as the major portion of its volatile content has been squeezed off by the enormous strain of the mountains' building pressure. Coal seams varying in width from 1 to 10 metres occur in this belt almost throughout its length. All the seams are steeply inclined. The most promising of them are those between the Tista and the Lish rivers, the Lish and the Ramthi rivers, and the stretch between the Ramthi and the Chel rivers—the last two being more important. At one time, P. N. Bose of the Geological Survey of India estimated a total reserve of 30 million tons of workable coal down to a depth of 1,000 feet in the second sector mentioned above. It is, however, obvious that coal cannot be extracted from such a depth due to its crushed nature and the overlapping strata. A total reserve of 12 million tonnes down to a depth of 65 metres for the entire belt may, however, be not too optimistic. The analysis data of a few recent samples of this coal are given below.



Place of origin	Volatile matter (%)	Fixed Carbon (%)	Ash (%)
Tindharia	7.76	58.82	31.12
Lethi River	4.67	65.81	28.15
Noam Forest	6.70	64.81	26.39
Bagrakot	15.10	43.00	41.90

During the period from 1896 to 1900, extraction was made from certain exposures about 4 miles north of Bagrakot railway station, where the Lish and Churanti rivers approach one another through the forest. This was an attempt to work coal on a commercial basis, and 7,231 tonnes was raised before the attempt was abandoned. In 1943 prospecting was undertaken in the same neighbourhood, where seams of some thickness were found exposed and quantities of coal were extracted and sold locally.

Collieries in the district raise coal by open-cast quarries on outcrops of large and small lenticular seams occurring on the hill slopes or river valleys. The entire production is consumed by local brick manufacturers.

Another interesting feature of the coal-fields of the district is the occurrence of natural coke. Its formation is due to the heat effect of igneous intrusion (diorite) on the coal seams. No analysis of this coke is available, but local consumers say that it is difficult to ignite it, but once lighted, it burns smoothly producing considerable heat. An idea of the production of coal in the district in recent years may be had from the following table.

Name of Colliery (with area)	Production in Tonnes			
	1961	1962	1963	1964
Lethi Valley Colliery (831 acres in Lethi and Noam Forest Blocks) P.O. Fagu.	12,031	10,549	4,661	3,016
Fagu Colliery (785 acres in Fagu Forest Block) P.O. Gorubathan	8,226	6,018	2,627	1,884
East Bagrakot Colliery (191 acres in Chel River Forest in Ramthi Valley Stream) P.O. Bagrakot	34,360	27,612	19,032	15,081

It is clear that there was diminishing production in each of the three collieries from year to year. Since 1965 there has been no local production of coal in those areas, better-quality coal from Jharia and Raniganj being available because of improved transport facilities.

Charcoal manufacture has long been an important industry of the district. In the days preceding the Second World War more than 1,50,000 bags of charcoal were consumed annually by the local population. In 1951 the yearly demand in Darjiling town alone was estimated at 1,20,000 bags. It is needed mainly for domestic purposes like cooking and heating, but some quantities are also required for the manufacture of *kukris*. Charcoal is produced by burning wood with a restricted supply of air. But the cost of transportation in the hilly areas being heavy, the primitive method of burning wood in the forest is preferred which, although preventing the adoption of more efficient methods, usually provides marginal employment to a large number of labourers at a time when they have nothing to do in the fields. The manufacturing process of this important commodity is briefly quoted below from Dash's Darjiling District Gazetteer of 1947 (*op. cit.* pp. 149-50.)

Kilns or *bhattis* are made at convenient flat sites in the forest near the trees to be felled. . . The largest logs are placed at the bottom and smaller logs above them until finally, at the top, branches and bush wood are stacked, the object being to reduce air spaces to a minimum. . . The volume of an average kiln is 1,500 cubic feet and the whole stack is covered with earth 6 to 9 inches thick with a small opening 3' x 3' at the bottom running right through to the middle. Some small openings are made in the earth at the top and sides so as to give a draught when the kiln is first fired. After two days when the fire is well alight all holes and the opening below are completely closed and the wood inside burns without air. As it burns it contracts, and cracks form in the earth cover. These have to be carefully watched and plugged with green wood and more earth. A skilful charcoal burner has to be very vigilant particularly at night when the flame through the cracks can be easily seen and enables him to decide when the kiln has been completely burnt and should be opened. This stage is reached when the flame shows blue. The kiln is then broken from the side, wet earth is thrown on the charcoal and samples taken out to see if it has been completely and properly burnt. . . When the burning is considered to be finished, the kiln is gradually broken at the side, the hot charcoal cooled with wet earth, sieved, bagged and carried to a cart road.

"The burning of a normal kiln takes about three weeks and longer in the rains during which season mats are used to protect it from rain. The yield is about 10 to 12 cartloads. . . The entire process from the commencement of felling to the extraction of charcoal from the kiln takes one man about two months. During this time he is financed by the person who has contracted with the Forest Department to produce charcoal. After firing one kiln, the manufacturer begins to fell more trees in preparation for a fresh kiln. In the *Terai* what is known as the Chinese method of charcoal manufacture has been adopted. A pit is dug in which wood is stacked. The stack is covered with iron sheets and it is fired through a hole in the centre. The iron sheets are effective in keeping out air and causing combustion to take place at a high temperature. Thereby a higher yield and more rapid manufacture are obtained."

Charcoal is usually sold in units of cartloads or bags. Thirteen bags normally form one cartload. Dash reported in 1947 that the price in Darjiling town was Rs. 2.62 per bag.

The East India Company started shipping tea from China to England as early as in 1689. In 1721 it obtained monopoly rights in the trade which continued for a little over 100 years. In 1833 with the loss of this monopoly, serious attempts were made to find an alternative source of supply and in 1834 the Governor-General, Lord William Bentinck, appointed a Committee for preparing a plan for introducing tea cultivation in India, partly due to these efforts but largely due to the pioneering zeal

The Tea Industry

of Dr. Campbell, the Superintendent of Darjiling at a time, the tea industry took firm roots in the district in subsequent years. In 1840 he started experimental plantations and seeing that prospects were good, others followed, the seeds being supplied by Government. In 1852 one Mr. Jackson remarked in a report that bushes of both Assam and China types were doing well in Dr. Campbell's garden in Darjiling as well as in the more extensive plantations of Dr. Withecombe, the Civil Surgeon, and of Major Crommelin of the Engineers at Lebong.

By 1856 tea industry was firmly established in the district as a commercial enterprise. "In that year the Aluaari tea garden was opened by the Kurseong and Darjiling Tea Company, and another on the Lebong spur by the Darjiling Land Mortgage Bank ; in 1859 the Dhutaria garden was started by Dr. Brougham ; and between 1860 and 1864 four gardens, at Ging, Ambutia, Tukdha and Phubsering were established by the Darjiling Tea Company, and the gardens at Takvar and Badamtam by the Lebong Tea Company. Other gardens which were started at this early period were those now known as the Makaibari, Pandam and Steinthal tea estates."¹ With the rapid progress of tea industry in the hills, the planters turned their attention to the *Terai* where experimental plantations had already been started. Here, in 1862, the first tea garden was opened at Champita by Mr. James White who had already earned a reputation for starting the large Singel tea estate near Kurseong. Others followed his example and by 1866 more gardens were established in the *Terai* area. By 1873 about 15,000 acres were under tea² and in 1874 the number of tea gardens in the district had increased to 113 with 18,888 acres under actual cultivation, the total outturn being 39,28,000 lb. Between 1866 and 1874 the number of tea gardens increased very rapidly accounting for an 82 per cent increase in the cultivated area. The development of the industry subsequent to 1885 and up to 1940 is given in the following table below :³

Year	No. of tea gardens	Area under tea (in acres)	Outturn (in lbs.)
1885	175	38,499	90,90,500
1895	186	48,692	1,17,14,500
1905	148	50,618	1,24,47,500
1910	148	51,281	1,41,37,500
1915	148	54,024	2,03,03,500
1920	148	59,356	1,58,50,500
1925	148	59,356	1,87,32,500
1930	148	59,356	2,08,70,500
1935	148	59,356	2,10,26,000
1940	142	63,059	2,37,21,500

1 L. S. S. O Malley—*Bengal District Gazetteers : Darjiling*, Calcutta, 1907, pp. 73-84.

2 D. H. Buchanan—*The Development of Capitalistic Enterprise in India*, New York, 1934 p. 56.

3 Source—*Bengal District Gazetteers : Darjiling* ; 1947.

Between 1940 and 1943 the production continued increasing in spite of growing transportation and other costs. While in 1942 the output was 2,64,78,500 lb. of black tea and 12,42,000 lb. of green tea, the output was 2,55,93,000 lb. of black tea and 25,72,500 lb. of green tea in the subsequent year. The distribution of tea gardens during this period is shown in the following table.

Name of Police station	No. of Tea Estates
Darjiling	19
Jore Bungalow	16
Sukhiapokhri	9
Pulbazar	2
Rangli Rangliot	9
Kurseong	25
Mirik	5
Siliguri	27
Kharibari	11
Phansidewa	13
Kalimpong	0
Gorubathan	6

It will be seen from the preceding table that only in Kalimpong subdivision land was withheld from tea cultivation as, in accordance with Government policy, that area was kept earmarked for reserved forests and ordinary agriculture. The latest available statistics, correct as on 31 March 1965, about the total area under tea in the district are given in the following table.¹

Name of Subdivision	Area of the Tea Estates (in Hectares)	Area under tea cultivation including fallow (in Hectares)	No. of estates	
			With tea factories	Without tea factories
Darjiling Sadar	23,770.94	11,325.81	50	3
Kalimpong	2,869.04	1,143.59	6	—
Kurseong	15,943.41	6,370.05	31	3
Siliguri	20,332.17	9,131.52	42	2
Small growers	21.44	19.74		
Total	62,937.00	27,990.71	119	8

¹ Source : Tea Board ; *Tea Directory* ; Calcutta, 1966.

The Lead Bank Survey Report of the Central Bank of India sums up the position in 1971 as follows :

Number of tea gardens	140
Area under tea cultivation	63,000 acres
Persons employed in factories and plantations	69,000

The total production of tea in the district in 1969 has been reported as 200 lakh kgs.

Cultivation

The limits of tea cultivation in the district range from 300 feet above sea-level in the *Terai* area to 6,000 feet or above around Darjiling town. Important factors which usually govern the growth of tea are altitude, soil, aspect and slope of the land. The soil of the district varies in different regions from red clay to sandy loam but all seem suitable for tea cultivation. The rainfall of the district, although varying from place to place, is on the whole favourable for the growth of tea.

Tea is usually grown from seeds. After germination, seedlings are reared for six months to three years in the nursery and are then planted out in the fields at intervals of about four feet. In the hills tea bushes reach maturity in about seven years. Many of the bushes in the existing plantations have been reared from seeds imported from China, and although a century old are yielding crops in excess of those harvested 30 or 40 years ago. Most gardens now consider it prudent to undertake a steady rotation of the uprooting and replanting process—not so much because the old tea bushes are unproductive through age as because selection has shown that bushes can be substituted producing a good-quality leaf with much higher yields. A peculiarly rich flavour is what has made Darjiling teas famous throughout the world. But the quality varies in different parts of the district as also at different seasons on the same estate. The finest quality is usually obtained from the second growth just before the onset of the monsoons, and again at the end of the season when the growth becomes slow and the sap thick. It is generally recognized that the crops raised during the rains are watery and poor. The average yield from a Darjiling tea garden in the hills is about 224 kilograms (6 maunds) per acre as against about 560 kilograms (15 maunds) in the *Terai* and the *Dooars*. Some of the better-maintained gardens in the hills are, however, able to produce 373 kilograms (10 maunds) per acre without loss of quality. O'Malley had stated in the old Darjiling District Gazetteer : “Most of the area in Darjiling has been planted with the China variety, which was for many years considered the only kind suited for the production of fine tea. . . . Of late years the variety known as the ‘Assam indigenous’ has been much in favour and it is

certainly capable of producing the very finest tea. ...A good hybrid from these two varieties above mentioned has proved most suitable all round. Some fields have been planted with the 'Manipur indigenous' which is the most hardy of all the varieties, and gives a good yield but the tea produced is almost invariably coarse and rank in flavour. ...Recently a distinct variety has been found in Formosa, of which some specimen plants are now being raised."¹

After proper selection of the species comes the problem of propagation. In vegetative propagation, a single leaf with a short stem attached to it is set in the nursery bed or a polythene tube containing soil. After several months, small roots grow from the leaf axil. This is the beginning of many new tea bush from the mother plant. This system has not, however, been adopted by many tea gardens in Darjiling, primarily because it requires technical know-how not available to them. It is also time-consuming, requiring field trials over a long period and is thus expensive. Most gardens, therefore, still follow the traditional method of propagation from seeds under which it takes about 10 years for a tea bush to reach maturity while under the former it takes only 6 to 7 years. In Darjiling, plucking takes place every seven days for seven months in the year. During the winter bushes are pruned. In the hills it is customary to prune tea bushes once every three years. But at lower elevations and in the Terai, annual pruning is not uncommon. Heavy pruning that is cutting the thick branches of the bush close to ground level, is only necessary once in 20 to 30 years. After such pruning, the bushes take several years to regain their optimum output of quantity and quality. The soft shoots sprouting after a pruning are called the 'first flush', from which the finest teas are made. There is then a lull in the growth until the 'second flush' appears, when the output of leaves is relatively small, but this is considered the vintage period of the whole year. From July to October, tea is of standard quality. Then for a short period till the end of November a small crop of 'autumnal' leaf is harvested, which has a flavoury but thin liquor.

Propagation

Nitrogen in the form of sulphate of ammonia is commonly used in tea cultivation, the normal requirement being 200 lbs. per acre. To prevent erosion of soil, cover crops are usually grown in the gardens, and weeds and grasses which hinder the growth of tea bushes are carefully eliminated.

About damage to tea crops, the Gazetteer of 1947 stated : "In the Darjiling hills it is on the whole correct to say that the lower valleys are less affected by hail than the higher altitude slopes."²

Damage to crops

¹ L.S.S.O 'Malley--*op. cit.*, pp. 76-7.

² A.J.Dash--*Bengal District Gazetteers : Darjiling ; Calcutta, 1947, p.116.*

The overall damage due to natural causes is estimated at twenty-five per cent of a garden's normal annual harvest. During the summer months (April and May) a dry and very hot wind blows in the *Terai* area for a few days, causing the leaves to wither and fall.

Pests and blights

There are many varieties of pests and blights that attack the tea plant of which the most common are the red spider, the green fly and the mosquito blight. The former is, at times, numerous enough to give extensive areas of tea the appearance of rusted bushes but it usually disappears with the advent of heavy showers in June. Application of sulphur in one form or another combats this pest successfully. Mosquito blight is very menacing, but it is for the most part limited to the *Terai* area. It manifests itself first as small black spots on the young leaves and gradually causes all the tenderer leaves of the bush to dry and blacken, affecting the crop seriously. The green fly attacks tea bushes, but while reducing the crop to some extent, it is believed to produce beneficial effects on the flavour of tea. Mention may also be made of blister blight, which can severely damage pruned tea by destroying the young succulent shoots that sprout after pruning.

Manufacture

For the manufacture of tea only the two top leaves and the bud are picked as a standard practice. The crop then undergoes a manufacturing process, well-described by Dash in the *Darjiling Gazetteer* of 1947, which is worth quoting: "The four main processes of manufacture are withering, rolling, fermentation and drying. The leaves (known as 'the leaf') are withered for 18 hours by which time they have become flaccid without being overdry. From the withering racks the leaf is fed into rollers, most of which hold about 300 pounds of withered leaf, which will make about a 100 pounds of finished tea. The object of rolling is to distort the cells of the leaf. The machines in this operation attempt to achieve, on a larger scale, the effect originally obtained by rolling the leaf in the palms of the hand. As soon as the cells of the leaf have become sufficiently distorted, oxygen is absorbed from the air and complicated chemical changes take place. The chief of these is the transformation of white, bitter tea tannin into red pungent substance. From the commencement of rolling the leaf begins to change colour. From green it takes on a yellow tint and finally a bright burnished-copper colour. Leaf is rolled for about 90 minutes (with interruptions for sifting and cooling the leaf at discretion) and thereafter is left lying thinly spread upon clean fermenting beds until the process is complete. Fermentation is usually complete $3\frac{1}{2}$ hours after the commencement of rolling. It should be noted that 'tea-tannin' is an entirely different substance from the tannin of medicine and commerce.

"The copper-coloured fermented leaf, which by now has an agreeable aroma, is taken to drying machines where moisture is

extracted by exposing it to a draft of hot air (at some 200°F.). After about 25 minutes, the tea is black and feels completely dry. Actually its moisture content at this stage is about 3 per cent. With the drying process the manufacture of tea is for all practical purposes complete; the dry black leaves are, however, long, irregular and inconvenient for packing, handling and blending. They are, therefore, cut and sorted. Nine different sizes of tea are commonly made ranging from dust to pekoe which is about half an inch long. The sorted teas are kept in zinc lined bins until a sufficient quantity of each grade has been accumulated for packing. In the hills this quantity is usually about a ton. In present times tea is almost invariably packed in three-ply chests with a metal foil and inner paper lining. Vibrating machines are used to ensure that the tea is correctly packed. In the hills tea chests contain from 65 to 90 lb. of tea. In the plains, where transport presents an easier problem, a larger chest is customary.

"Many factories derive their motive power from a water-driven turbine. A few are supplied from the Darjeeling Municipal Electric Supply Station. Others use oil engines of the Diesel type. Most factories are lit electrically. A number are served by ropeways, others use pack ponies for transport."¹

In the beginning it was thought that tea would grow successfully only at high altitudes and, accordingly, planting experiments were mostly confined to hilly areas of the district. In later years, however, this proved to be a wrong assumption and except for the neighbouring areas of Darjiling most of the development has since been in the plains, which now produce good quality tea and yield heavier crops per acre. Tea grown at an altitude of about 7,000 feet has a particularly fine flavour and commands a regular demand throughout the year. But the yield of this tea per acre is relatively small which, indeed, has been one of the principal reasons for the extension of tea cultivation at the foot of the hills where plain agriculture is possible.

Altitude and
quality

Gardens in the *Terai* are still experimenting with manufacturing processes with a view to devising a system which will enable them to complete the entire manufacturing cycle from the leaf stage to the finished product in a continuous and controlled chain within the minimum time. Much progress is reported to have been achieved already in the method of 'withering'. Formerly, tea produced during the rainy season was of very poor quality as the leaf did not receive enough sunshine. The complex chemical changes undergone during the withering process also hampered the production of quality tea. Planters are now trying to overcome weather hazards through artificial processes. Among the machines with which experiments are being made today, mention may be made of Toklai Withering Tunnel, the Drum Wither and the Trough Wither—all aiming at reducing leaf moisture. Rolling

¹ A.J. Dash—*op. cit.*, pp. 117-18.

is also being tried with new machinery and attempts are also being made to reduce the space and time required for the fermentation process. Among new methods are the Trough Fermentation System and artificial fermentation with oxygen. Formerly, the drying chamber used to be fired by coal but now other fuels are being introduced. The object is to incorporate fermentation and drying in a continuous and controlled process within a limited space and time. Some gardens in the *Terai* also manufacture green tea and, with limited knowledge at hand, an attempt was also made to manufacture 'instant tea', which did not prove successful.

Labour condition and wages

About 96 per cent of the labour employed in the tea gardens in the hills are Nepalis, while in the *Terai* the labour population is mixed,—with only 7 per cent Nepalis and a high proportion of Scheduled Caste immigrants from Chotanagpur. Labourers are mostly recruited through *sardars*, private agencies or employed personnel prior to February, which is the peak month in the gardens when the attendance of male labour is high. March-April and September-November constitute the two flushing period evoking increased attendance, particularly of female pluckers. There is a general decline in attendance during May to September, partly because this happens to be the lean period and partly, because it is the season for dysentery in the hills and for malaria in the plains. No shortage of labour is felt in the hill gardens. In the plains, recruitment is made also through the Tea District Labour Association, besides the agencies already mentioned.

The wage-structure of tea garden labour is dealt with elsewhere and need not be repeated here. The tea factories are governed by the Factories Act, 1948, as amended from time to time. Factory labour usually has Monday as a holiday during the manufacturing season and Sunday during the slack season. Sunday is the usual rest day for garden labour. During Kalipuja and/or Doljatra festivals the labour is allowed holidays from 2 to 4 days without pay. Rent-free accommodation is provided for them by the management. They also get plots of free land for growing food for themselves.

Most of the tea gardens maintain outdoor dispensaries manned by qualified medical personnel. Some of the estates also run primary schools for the labourers' children. In recent years labour welfare centres have been established in plantation areas, which provide education, recreation, physical culture and craft training, besides free medical aid. In 1963 the daily number of labourers employed in the 98 hill gardens averaged 42,035, while the corresponding figure for the 46 gardens in the *Terai* was 19,075.¹

¹ The figures for the *Terai* include a portion of the Jalpaiguri district.

According to the latest available figures, the district produced 3,53,38,780 lbs. of tea during 1958, the area under tea during the year being 68,007. 46 acres.¹

After tea, cinchona is the most important plantation industry of the district, a detailed account of which is given in what follows.²

Cinchona
Plantation
industry

Origin of the name

The cinchona tree was indigenous to the Andean hill slopes in South America at altitudes between 2,500 and 9,000 feet. The natural region of Cinchona extended from 10°N latitude to 20°S latitude, through Columbia, Equador, Peru and Bolivia on the eastern side of the main range of the Andes. Opinions differ as to whether the aborigines of these regions, the Aztecs and Incas, knew of the febrifugal properties of the tree, but it is known that the Spanish Jesuits in Peru became acquainted with the fever-curing action of the bark of certain species of trees towards the end of the 16th century. This bark was known by the Peruvian name of "Quinaquina", which meant a bark possessing medicinal properties.

The watery decoction of the bark was originally used for curing fevers, but later investigations on its active principles led to the discovery of the cinchona alkaloids, namely, *cinchonine* by Gomes in 1815, *quinine* by Pelletier and Caventon in 1820, *quinidine* by Henry and Delondre in 1833 and *cinchonidine* by Winckler in 1847. In Paris a beautiful monument stands to this day to commemorate the first isolation of quinine, the most important of the cinchona alkaloids, by the two French chemists. Total synthesis of quinine was, however, effected only in 1944 at Harvard University by Woodward and Doering who were later awarded the Nobel Prize for this important work. The preparation of synthetic quinine, is, however, a complicated and expensive process and it is doubtful if it can ever replace the naturally produced drug.

Isolation of
alkaloids

Cinchona cultivation in Bengal started in 1861. The first cinchona seeds received by Dr. T. Anderson, the then Superintendent of the Royal Botanical Garden, Calcutta, were from Sir W. J. Hooker of the Kew Botanical Garden. Thirty-one plants were produced from these seeds at the Royal Botanical Garden, Calcutta. Dr. Anderson was sent to Java during the same year to study the cultural methods of the Dutch planters and he brought back some cinchona seeds and plants from the plantation there. Some of these were sent to Ootacamund and exchanged for some plants already grown there from the stock obtained from South America. Some of the Java plants died in Calcutta and it was

Introduction of
Cinchona into
Bengal

1 Tea Board—*Tea statistics, 1966-7*; Calcutta, 1967; p. 98.

2 Extracts have been taken from an article specially written for this volume by S. Mukherjee, Director of Cinchona, West Bengal (1955-68).

decided early in 1862 to send to Sikkim all the 289 plants from all sources surviving at that time. The first planting was made in June 1862 on the Senchai ridge, but this place proved too cold for the plants. The next spot to be chosen was at Lebong at a slightly lower elevation and the stock of plants at Senchai was shifted there in 1863. By the time an area in the Rumbée valley, on the slopes of a spur from the Senchai ridge (including Mungpoo) was selected for planting and the first field planting was made there in 1864 at an elevation of about 4,400 feet. Thus after prolonged trial and error, a cinchona plantation was ultimately established in the Darjiling Himalayas, which was known as the Mungpoo plantation after the name of a village somewhat lower down the spur.

The species of
cinchona

Cinchona belongs to the family Rubiaceae. After the genus of cinchona was named by Linnaeus, a very large number of species of this plant were described by botanists. Many of these were later found to be merely variations and not separate species. Hooker and Bantham in their *Genera Plantarum* reduced the number of species to thirty-six. Out of these, only about a dozen species contain alkaloids to be of any medicinal value. The following species were reported to have been introduced into India from various sources :

- (1) *Cinchona calisaya* (yellow bark)
- (2) *Cinchona succirubra* (red bark)
- (3) *Cinchona officinalis* (crown or pale bark)
- (4) *Cinchona pitayensis*
- (5) *Cinchona lancifolia* (pale bark)
- (6) *Cinchona micrantha* (grey bark)
- (7) *Cinchona pahudiana*
- (8) *Cinchona ledgeriana* Moens
- (9) *Cinchona peruviana*

Cultivation of some of the above species has since been discontinued, and two or three hybrids, notably *Robusta* and a cross between *Ledger* and *Succirubra* has been developed in Bengal plantations. At present the plantations in Darjiling grow only *C. Ledgeriana*, hybrid (1 x s) and small areas of *Robusta* and

Succirubra.

Cultivation of
Cinchona

In their natural habitats in South America, cinchona trees were reported to have grown to heights of 30 to 60 feet. In the Indian plantations, cinchona trees may, under favourable conditions, grow to heights of 20 to 30 feet. Trunk diameters can be as much as 18 inches. But under normal operations of cultivation the trees are cut down or uprooted before reaching the maximum size.

Cinchona can be grown only under suitable climatic and soil conditions. These generally are :

Conditions necessary for growing cinchona

- (i) The climate should be fairly cool and moist. There should be no frost and the maximum temperature should not exceed 100° F. Rainfall may be heavy or medium, but there should not be long periods of drought.
- (ii) The land should be well-drained.
- (iii) The soil should be porous, acidic and rich in nitrogen. The above conditions are more or less fulfilled in the plantation areas on the hills of Darjiling which are situated at elevations between 1,500 and 6,000 feet.

The traditional method of growing cinchona is by sowing seeds on specially prepared beds in thatch-covered nurseries. The sowing time is February-March. The seeds are small and exceedingly light. There are about 70,000 seeds per ounce (approximately 28 gms), which are expected to produce 20,000 to 25,000 plants. When the seedlings are about half an inch high, these are transplanted to other beds, also under cover, 1 inch apart. When about 4 inches high, they are transplanted once again in nursery beds at 4 inches spacing. By October, the seedlings are nearly a foot high and the thatched roof of the nursery beds is removed at this time to allow exposure to the sun. These are then planted in the field in prepared tallies generally at 4 ft. into 4 ft. spacing. In the first year the tallies are kept clean by hand-weeding and sickling. From the second year onwards, weeds are kept down by light hoeing and hand-weeding. Thinning, i.e., taking off some of the stems to prevent crowding, is generally necessary from the third year.

Planting of cinchona

The current practice in Darjiling plantations is to 'coppice' the trees in the eighth year, leaving stumps from which fresh shoots come up. The bark is beaten off with wooden hammers from the stems and branches. This is the first major harvest of bark. When new shoots grow up on the coppiced trees, these are tended like young plants and the tree is uprooted finally in the sixteenth year, i.e., eight years after coppicing. The bark is then taken off from the root, stem and branch of the tree. This is the final harvest. Minor bark harvests are, however, obtained from the third year after planting till the seventh year and again from the third year after coppicing till one year before uprooting by way of thinning and salvaging of the diseased and dying plants.

Harvesting of cinchona bark

The fresh or green bark is dried in the sun or on shelves in bark-drying sheds. The dry bark generally contains 8 to 10 per cent moisture. The average ratio of dry bark to green bark is about 40 per cent. On a rough estimate, the average yield of dry bark per acre may be taken as 1,000 kilograms by coppicing and 1,500

Yield of bark

kilograms by uprootal. 500 kilograms more of bark harvest per acre may be expected from thinning and salvaging during the 16-year life cycle of the plant, —bringing the total harvest per acre to 3,000 kilograms.

Alkaloid contents of cinchona trees

Quinine and other cinchona alkaloids occur mostly in the bark of the tree. The wood and leaves contain very small quantities. The bark alone is, therefore, used for the isolation of the alkaloids. The alkaloid content of the bark and the proportion of quinine in the total alkaloids depend to a large extent on the species and the strain of the plant. The average quinine content of the bark from Darjiling plantations is nearly 4 per cent which leaves room for improvement in this behalf.

Isolation of total cinchona alkaloids

A factory for the isolation of alkaloids from cinchona bark was first set up at Mungpoo in 1874 and its operation started in 1875. It was designed to isolate the total alkaloids in a somewhat crude form and this was issued as such for use as a febrifuge. Clinical trials with the product showed that this could be used as a cheaper substitute of quinine and was equally effective in therapeutic properties. This factory did not use any power and the maceration of bark with acid was carried out in wooden tubs. The plantation at Mungpoo, consisted at that time mostly of *succirubra* trees, the bark of which contained a good proportion of total alkaloids as well as a red colouring substance but was unsuitable for the isolation of quinine. As *cinchona succirubra* was a hardier plant and grew more vigorously than the other species, the Government had earlier adopted the policy of extending this species and of making a cheap cinchona febrifuge out of its total alkaloids. The policy of the Government, however, started changing from 1874, when it was decided to replace gradually *succirubra* trees by *C. ledgeriana*, which are richer in quinine, with a view ultimately to start isolating quinine. In the meantime, the production of febrifuge continued and reached the maximum output of 10,000 lbs. in 1883.

Isolation of quinine

The isolation of quinine at the Mungpoo factory started in 1888 and quinine production increased steadily, gradually replacing cinchona febrifuge. This factory was situated at the present site and grew into its present shape. In the manufacturing process dry bark is powdered in disintegrators, mixed into a moist mass with lime and water and extracted with a mineral oil called Batching Oil under steam heating. The alkaloids are re-extracted from the oil with sulphuric acid and the acid extract is neutralised when quinine sulphate crystallises on cooling, leaving the other alkaloids in solution. The crude quinine sulphate is separated from the solution in a centrifugal hydro-extractor and is purified by another crystallisation.

The mother liquor obtained by centrifuging crude quinine sulphate is treated with caustic soda when the mixed alkaloids containing a small quantity of dissolved quinine and all the other alkaloids are precipitated into an amorphous mass which is dried and powdered. This product is known commercially as 'cinchona febrifuge'. The Mungpoo factory used water power. Most of the equipment now in use there was installed in or about 1905. Over the years, there have, however, been many changes in the operative processes. The capacity of bark grinding, extraction and purification has increased considerably. In place of semi-purified quinine that was being produced previously, manufacture of quinine salts of B.P. standard started in 1950. Plants have been set up for the isolation of quinidine and for the manufacture of quinine hydrochloride, di-hydrochloride quinine ethyl carborate (tasteless quinine) and other quinine salts. Modern stainless steel and glass-lined equipment has been set up, dust extractors have been installed in the factory and some modern testing instruments have been set up in the laboratory. A motor-driven rotary tableting machine has replaced the old single-punch machines. With all this, however, the factory still retains the ancient look and the essentially antiquated quinine manufacturing process.

Cinchona cultivation was confined to the Mungpoo plantation till 1900, when a second cinchona plantation was opened at Munsong situated to the north of Kalimpong and bordering on Sikkim. A third cinchona plantation was opened at Rongo in 1938 near the Bhutan border. The fourth cinchona plantation was started at Latpanchor in 1944. All the four plantations are in the hill areas of Darjiling district. The Mungpoo plantation lies in Sadar subdivision, Munsong and Rongo in Kalimpong subdivision and Latpanchor in Kurseong subdivision of the district. In 1957 it was decided by the Government to close down the cinchona plantation at Rongo and the entire plantation area was transferred to the control of the Directorate of Medicinal Plants created at that time. The cinchona area in this plantation has since been dwindling due to gradual uprooting without replanting.

Extension and
areas of Cinchona
Plantations

The gross area occupied by the plantations is much larger than the area actually under cultivation of cinchona as only about a third of the gross area on these hill slopes is available for cultivation or related uses, the rest being too steep or stony which has to be kept under forest cover for preventing soil erosion. The available land has also to be put to many uses ancillary to cinchona cultivation, e.g., for setting up labour colonies, for roads, buildings, and godowns, for growing bamboo and thatch grass for the construction of nurseries and huts for labourers.

The area under standing cinchona trees in the three plantations, Mungpoo, Munsong and Latpanchor as on 1 April 1967 was as follows :

	Acres
Mungpoo	806.74
Munsong	1,667.50
Latpanchor	842.32

The gross area of the three cinchona plantations is about 22,000 acres. Ipecac and the 'alternative and subsidiary' crops, namely, tung, cardamom and coffee, accounted for nearly 2,000 acres.

Production of
cinchona bark,
quinine etc.

All the dry cinchona bark produced in the plantations is sent to the quinine factory at Mungpoo for the manufacture of quinine and other cinchona products. At the factory the primary products of manufacture are quinine sulphate and cinchona febrifuge. About 800 to 900 tonnes of dry cinchona bark is processed every year, producing approximately 30,000 kilograms of quinine sulphate and 10,000 kilograms of cinchona febrifuge. The factory has also a capacity of manufacturing about 3,000 kilograms of quinine hydrochloride, 2,000 kilograms of quinine ethyl carbonate and varying quantities of other quinine salts by conversion from quinine sulphate. The present capacity of quinidine production is about 100 kilograms.

Alternative and
subsidiary crops

Among the alternative and subsidiary crops—also cultivated in cinchona plantations—are ipecac, tung (*Aleurites fordii* or *A. montana*), coffee (*arabica*) and cardamom (*bara elach*). Seeds of tung trees yield tung oil, which is used in the manufacture of paints and varnishes, printing inks, etc. The seeds are sold as such to oil-millers. Coffee fruits are dried and de-shelled to produce clean coffee, which is sold in the market. The cardamom pods are marketed after drying.

The approximate areas under the cultivation of the alternative and subsidiary crops as on 1 April 1967 were as follows :

	Acres
Tung	1,000
Cardamom	250
Coffee	250

The approximate current production from these plantations is : Tung seeds—70 to 80 tonnes; cardamom—6 to 8 tonnes; and coffee (de-husked beans)—5 to 6 tonnes. The quantities are subject to fluctuations depending on weather conditions. The revenue earned from sales of the produce amount to over two lakhs of rupees annually.

Sale of cinchona
products

Products of the cinchona plantations and the quinine factory are sold through the Government Quinine Sale Depot situated in Calcutta. Apart from sales in the internal market, considerable quantities of quinine salts and cinchona febrifuge are being exported

now. The value of cinchona products sold and exported during the three years 1964-65 to 1966-67 is shown below. Exports were made either directly or through Indian exporters, mostly to the U.K., the other European countries, and the U.S.A.

SALE OF CINCHONA PRODUCTS

Year	Value of sales (in Rs.)	Value of exports (in Rs.)
1964-65	58,42,675.88	30,29,067.00
1965-66	74,70,270.00	51,52,215.99
1966-67	96,87,305.00	71,71,917.50

The years following 1955, when the curtailment policy regarding cinchona plantation was under way, saw hectic efforts to introduce and cultivate various commercial crops in the cinchona plantations. Ipecac was being cultivated on a small scale in Mungpoo cinchona plantation since 1910 or so. Its root yields the valuable alkaloid Emetine. During the War, Ipecac cultivation was introduced and considerably expanded at the Rongo cinchona plantation. Ipecac root had a good market and this was, therefore, an obvious choice as an alternative crop. Its cultivation was extended at Mungpoo, but its scope of replacing cinchona on an extensive scale was limited by the availability of suitable land and of water for irrigation, leaf-moulds for nursery beds and materials for construction like bamboo and thatch grass. At Rongo, however, Ipecac could be grown on a much bigger scale and a separate organization was created by the Government for extending the cultivation of Ipecac and other medicinal plants there. As Rongo was the most uneconomic among the cinchona plantations, this entire plantation was transferred to the control of a new Directorate of Medicinal Plants set up in 1957. The Ipecac plantation at Mungpoo, which was already being extended by the cinchona organization, was also placed under the control of this new Directorate, though its cultivation continued by the cinchona labourers under the supervision of cinchona officers and staff. The cinchona and ipecac plantations in Darjiling district, with a capital investment of about Rs. 2.5 crores, together form the biggest commercial undertaking of the State Government in North Bengal. Today India is the world's biggest producer of ipecac roots,—the West Bengal plantation alone producing more than half the global output.

Cultivation of
alternative and
subsidiary crops

Ipecac

Experimental cultivation of Tung trees (*Aleurites fordii* and *A. montana*) was started in the cinchona plantations in 1948. The seed of the Tung tree yields Tung oil, which is much valued in the paint and varnish industry as a superior drying agent. The oil was being imported from China till 1962, when the import was discontinued. Extension of Tung cultivation in the cinchona plantations at Mungpoo, Munsong and Latpanchor was undertaken

Tung

since 1955, partly on vacant land and partly as shade trees in the cinchona areas. It did not prove successful as a shade tree, but its extension continued in vacant areas at elevations below 4,000 feet. These trees now constitute the largest Tung plantation in India. Its cultivation was transferred to the control of the Medicinal Plants Directorate in 1959 and was transferred back to the Cinchona Directorate in 1964.

Coffee Coffee cultivation on a plantation scale was, for the first time, introduced in the cinchona plantations in Darjiling in 1957 (after obtaining selected seeds of the Arabica species from the Central Coffee Research Institute at Balchonnur in Karnatak State and) under the technical advice of the Director of Coffee Research. Coffee showed very good promise initially and the area was extended to about 300 acres, but later on the performance was found to be not according to expectation. Coffee cultivation, which had been started by the Cinchona Directorate, was transferred to the control of the Medicinal Plants Directorate in 1959, but was transferred back to the Cinchona Directorate in 1965.

Cardamom Cardamom of the big variety (*Ammomum* 'sp.') is grown extensively in Sikkim, generally in moist areas. Its cultivation was introduced in Munsong cinchona plantation in 1953 and in Mungpoo in 1956 and was extended in suitable areas. Its cultivation was transferred to the control of the Directorate of Medicinal Plants in 1959 and transferred back to the Cinchona Directorate in 1964.

Aromatic and miscellaneous crops Attempts were made to introduce the following aromatic plants and other plants of commercial value in the cinchona plantations in Darjiling during the period from 1957 to 1960, without much success :

- (1) Patchouli (*Pagostemon patchouli*)
- (2) Lemon grass
- (3) Vetiver
- (4) Sandalwood trees
- (5) Vanilla
- (6) Cloves
- (7) Black pepper
- (8) Cinnamon
- (9) Cardamom (small variety)
- (10) Cocoa
- (11) Cashew-nuts.

Small-scale industries

While there are no largescale industries like jute, textile or sugar mills in the district, there are several small scale industries of recent origin, which are developing in many cases with financial assistance

from the Government. The following statement would give an idea of the number of registered factories in the district and the employment provided by them.¹

Year	No. of registered factories in the district	No. of persons employed
1951	153	7,525
1961	171	8,877
1966	184	8,202

The Lead Bank Survey Report for 1971 states that the number of registered factories has risen to 188 and that of workers to 8,245.

An industrial unit seeking financial assistance from Government must get itself registered with the Directorate of Cottage and Small Scale Industries and must fall within the following definition of small-scale industry : "All industrial units with a capital investment of not more than Rs. 7.50 lakhs, irrespective of the number of persons employed. Capital investment for this purpose will be investment in plant and machinery only. In case of ancillary industries—this ceiling will be relaxed up to Rs. 10 lakhs." The list of such small-scale industrial units in the district, which were registered with the Directorate of Cottage and Small-Scale Industries up to December 1967, is given below :

Name of industry	No. of units
Rice/Oil/Flour	16
Handicraft	3
Wood-craft and Furniture	10
Blacksmithy	30
Shoe-making	13
Candle	4
Confectionery and Bakery	5
Servicing and repairing of vehicles	10
Soap-making	5
Tailoring	32
Radio and Batteries	7
Engineering	11
Steel trunk manufacturing	11
Weaving	6
Printing press and Book-binding	5
Miscellaneous	38

¹ Source : Dy. Chief Inspector of Factories, West Bengal.

There were 182 registered small-scale industrial units in the Rural Industries Project area as on 22 September 1971. The number of unregistered S.S.I. units in the Project area was estimated to be 2,400.¹

Location of small-scale industries

While rice, oil and flour mills are mainly located at Siliguri, furniture, handicraft and wood-craft units are mostly located in the hill areas such as Darjiling, Kalimpong, Kurseong, Gorubathan and Mirik. Blacksmithy and shoe-making units are also to be found mainly in the latter areas. Candle-making, confectionery, bakery and soap-making are almost entirely concentrated at various places in the Siliguri subdivision, but tailoring units are generally located at Darjiling, Kurseong, Fagu, Todaygaon, Sukhiapokhri, Tukdah, Tung, Mirik and Kalimpong. Weaving units are found exclusively at Siliguri, whereas miscellaneous industrial establishments connected with cycle and cycle rickshaw repairing, food processing, bamboo-work, stone crush, manufacture of agricultural implements, repairing of batteries and dynamos, as well as rolling mills and saw mills, are scattered all over the district. Another class of small-scale industrial units falling within the Rural Industrial Project occurs in Darjiling-Pulbazar, Siliguri and Kalimpong Development Blocks, according to the following distribution :



Name of Development Block	No. of Industrial Units
Darjiling-Pulbazar	11
Siliguri	10
Kalimpong	4

Siliguri Industrial zone

Owing to the vantage location of Siliguri town in relation to the North Bengal districts as well as Bihar, Assam, Sikkim and Bhutan, its industrial and commercial growth since the partition of the State in 1947 has been phenomenal and this trend is likely to be maintained in the future. A brief description of the industrial picture of the place is given below.²

Rice and flour mills

According to the 1961 Census, there were 31 rice and flour mills in the Siliguri area, 93 per cent of which used power. In 1965 there were 11 rice mills, 43 atta mills and 2 flour mills there.

Bakeries

In 1965 bakery units numbered 23, of which at least 11 were economically sound. There is a growing demand for bakery products in the area.

1 *Lead Bank Survey Report (1971)* of the Central Bank of India for Darjiling district, Calcutta, 1971, pp. 57-58.

2 Source : *Interim Development Plan for Siliguri* : Development and Planning (T & CP) Department, Government of West Bengal.

In 1961 there were 7 saw mills in Siliguri town, employing 150 persons ; the corresponding figures in 1965 were 18 and 347. The Government saw mill established in 1926, which happens to be the largest, had a fixed capital of Rs. 3.75 lakhs and a working capital of Rs. 5.50 lakhs in 1965, providing employment to 137 persons per day. Its annual production in 1967 was 8,600 cubic metres (300,000 cubic feet), of sawn wood providing employment to 220 persons per day. Some of the other saw mills under private management, however, suffer from lack of adequate working capital.

Saw mills

In 1965 there were 2 plywood factories producing approximately 50 lakh square feet of plywood per year and employing 288 full-time workers. In the same year furniture manufacturing establishments numbered 18, which employed 105 persons a day and had a fixed capital of about Rs. 4.25 lakhs and a working capital of Rs. 70,000.

Plywood and furniture-making

In 1961 there were 31 automobile-servicing establishments at Siliguri employing 350 persons per day, —the corresponding figures for 1965 being 64 and 598. At least five of these were large and well-established units, employing 178 persons per day in 1965.

Automobile servicing industry

Other important industries of this area relate to fruit preservation and canning, umbrella assembly, soap making, manufacture of sodium silicate and aluminium utensils. Owing to difficulties for procuring raw materials, some of these units, particularly those manufacturing soap and aluminium, are suffering to some extent.

Other industries

Formerly, the population of the district being almost entirely agricultural, the local manufacturing classes were mainly engaged in catering to the needs of a rural people through village handicrafts, which produced little for export. The most important of these industries was weaving, coarse cotton cloth being customarily woven by all hill people. Today the principal products of utility are blankets, woollen knitted articles, handloom fabrics, *kukris*, various indigenous tools, pottery, baskets, mats and ropes. Mention should also be made of ornaments and trinkets of Tibetan and Nepalese types.

Cottage industries

The Kalimpong Industrial School deserves special mention for the part it has played in the resuscitation of local crafts. The origin of the school dates back to 1897, when Mrs. Catherine Graham, wife of the Rev. J. A. Graham, started teaching local hill women lace-making to supplement their income from agriculture. Their previous background in coarse weaving stood them in good stead and they showed great adaptability in manufacturing delicate crochet and fine gossamer-like lace, which were equal to some of the finest European products. With the passing

Kalimpong Industrial School

of years, embroidery, leather work, carpentry, carpet making, dyeing, weaving and fabric printing were gradually introduced. The development of these cottage industries made the people of the district realise the importance of the school, to which they sent their children for learning the various crafts. From 1924 the institution came under a Board of Directors, with a subscribed capital of Rs. 75,000 and was re-named the Kalimpong Mission Industries Association. Mr. Odling, Managing Director of the institution, was himself an architect, and under his guidance many buildings in the institution's campus were built. In 1958 the centre was transformed into a cooperative society with all its workers and most of the directors as members, and re-named as Kalimpong Arts and Crafts Industrial Co-operative Society Ltd. Today its products include embroidered and applique work on wall panels, fire-screens and three-fold screens representing Tibetan and hill life and culture, artistic Lepcha weave-products representing traditional craft, hand-block printed handloom cloths for use as furnishing fabrics and handloom weave of traditional Nepali and Lepcha designs. Other activities include yarn dyeing, tailoring, hand embroidering, carpentry and decorative woodworks. The society incurred a heavy loss owing to an accidental fire in 1964. At present the society is making good progress in its new building, all the workers of the institution being its members. Its products have a ready market and are in great demand.

Handloom weaving

In 1967-68 the total number of handloom weaving centres in the district was 13, with a total of 219 looms within the co-operative fold. The following table gives the location of these centres or units, the number of looms as also the number of persons employed at each during the said period.

Name of Centre or Unit	No. of looms	No. of persons employed
Tibetan Refugee Self Help Centre, Darjiling	33	82
Bhutia Association, Darjiling	9	10 (Trainees)
Training-cum-Production Centre, (Tripai) Darjiling	13	25
Chyosum United Tibetan Refugees' Self-Help Centre, Kalimpong	13	24
Lepcha Cultural Welfare Centre, Kalimpong	5	12

Kalimpong Arts and Crafts Industrial Co-operative Society Ltd., Kalimpong	40	29
Sambarihat Tantubay Samabay Samity Ltd.	7	Non-working
Siliguri Mahila Bayan O Silpa Samabay Samity Ltd.	3	Non-working
Jordon Weaving and Sales Co-operative Society Ltd.	16	Non-working
Phansidewa Weavers' Co-operative Society Ltd.	15	Non-working
Kharibari Tantubay Samabay Samity Ltd.	25	Non-working
Six Individual Units at Bharatnagar, Siliguri	25	25
Atharkhai Tantubay Samabay Samity Ltd.	15	Non-working

The total number of looms within the cooperative fold is given below for the period from 1963 to 1967, with the number of persons employed in each year.

Year	No. of looms	No. of persons Male	employed Female
1963-64	114	18	26
1964-65	114	6	22
1965-66	114	6	20
1966-67	121	6	26

The handloom products of the district are cotton *saris*, mosquito curtains, furnishing fabrics, woollen carpets, Lepcha-weave, tribal bags and utility goods.

As may be expected, the cottage industries of the district are many and varied. The table below names them along with their employment capacities and prevailing wage-rates during 1965-66.¹

Name of the industry	No. of workers employed	Daily wages in rupees
Tailoring	663	2.00
Bamboo-works	487	2.00
Wool-knitting	473	2.00
Shoe-making	377	2.00
Engineering workshops	350	3.00
Goldsmithy	350	4.00
Carpentry	290	3.50
Embroidery, Carpet-making,		
Lepcha-weaving	222	2.00
<i>Rari</i> (blanket) weaving	202	2.00
Cabinet and furniture making	129	3.00
Cane-works	129	2.00
<i>Atta</i> mills	112	2.00
Soap-making	103	2.00
Plywood manufacture	100	2.50

Smaller units with less than 100 workers have not been shown in the above statement. These industries include coppersmithy, oil mills, saw mills, umbrella making, steel and trunk making, candle making, paddy husking, etc.

Sericulture

To Mr. Sutherland, Principal of the Scottish Mission Institution at Kalimpong, goes the credit of first introducing sericulture as a subject in the school curriculum. One of his students later started private rearing of cocoons at Kalimpong. It was, however, not until 1917 that positive steps were taken by Government to introduce sericulture in the district, when the present Kurseong Nursery was established to rear exotic silk-worm breeds on the basis of the recommendations of Prof. H. M. Maxwell Lefroy who had undertaken an investigation into the causes of decline of sericulture in India at the instance of the Government of India.

During the First Five-year Plan, a new scheme was introduced for expansion of mulberry cultivation in the hill areas of the district and a mulberry nursery was started at Matigara, near Siliguri. During the Second Plan period, it was envisaged that the hill regions, having a favourable climate for rearing high-yielding exotic races of silk worms, could be utilized for such rearing besides the same work being carried on in the plains during the winter. Such seeds could also be crossed with hard indigenous races and F-1 hybrids for commercial

¹ Source : District Industrial Officer, Darjiling.

rearing. Accordingly, with financial assistance from the Central Government received through the Central Silk Board, 3 schemes were implemented in the district as briefly narrated below.

A Foreign Race Seed Station has been set up at Kalimpong, with the object of studying the nature and feed of silkworm races of high-yielding exotic varieties besides supplying basic layings for multiplication and evolving cross-bred races suitable for summer seasons of the plain districts. At present several races from Japan and European countries are being maintained at this station. One high-yielding silkworm race, suitable for the summer season, has already been evolved and about 500 kilograms of seed cocoons are being produced here annually.

Two seed multiplication stations have been set up at Kalimpong and Matigara for multiplying silkworm races of exotic varieties to meet the demand of the plain districts. It is reported that at these centres about 2000 kilograms of seed cocoons are being produced annually.

Seed Multi-
plication stations
at Kalimpong
and Matigara

At the Government Grainage at Matigara, the object is the preparation of silkworm eggs by using both exotic and indigenous races. At this centre about 5 lakh layings of silkworm are being produced annually. With a view to improving the foodplant by grafting Japanese varieties with indigenous stocks, a separate scheme was also taken up and introduced at Matigara.

The training centres at Tripai (Kalimpong P.S.), Relling (Bijanbari P.S.) and the Kalimpong Nursery are being run by the Directorate of Cottage and Small Scale Industries, while three other centres at Mirik, Kurseong and Seventh-Mile (Kalimpong P.S.) are under the Tribal Welfare Department. There is another training centre at Gorubathan managed by the Agriculture and Community Development Department. Besides implementation of the training programme, mulberry plants are also being distributed every year among the villagers and the trainees, free of cost. In Kalimpong subdivision the number of rearers in 1967-68 was 64 while the same for Darjiling Sadar and Kurseong was 21 and 15 respectively. The following statement gives district production figures of cocoons from 1964-65 to 1967-68.¹

Training Centres

Year	Production of cocoons (in Kilograms)
1964-65	272
1965-66	958
1966-67	1,240
1967-68	1,400

The total value of cocoons produced in 1970-71 was Rs. 64,000.

To follow up the extension work in the interior villages where the local people have no past tradition of sericulture work, an extension wing under the Directorate of Cottage and Small Scale Industries of the State Government has already been set up at Siliguri under the direct supervision of the Superintendent of Sericulture, Siliguri. A sericulture sub-research station of the Central Government is also functioning at Kalimpong with a view to stimulating basic research on mulberry cultivation.

Handicrafts

Darjiling's handicrafts enjoy a well-earned reputation for their artistic designs and quality. They have borrowed freely from the techniques in vogue in Sikkim, Bhutan and Tibet. In recent years there has been a diversification into newer fields of art and craft without sacrificing the traditional outlook. The more important handicrafts of the district include bell-metal work, woollen carpets with various designs, applique work, woodcraft, embroidered fire-screens, dolls, wooden masks, ornamental trinkets, Lepcha weave and bamboo craft. Many of them depict motifs imported from Tibet and adjoining countries. Visitors to Darjiling are often impressed by the beautiful curios made at Kalimpong on copper plates studded with coloured stones or with engravings of replicas of deities. *Tanka* banners of Buddhist images or incidents of the life of Buddha are also made here and the monasteries display many of them.

Tibetan Refugees Self-Help Centre

The Tibetan Refugees' Self-Help Centre, set up in October 1959, two miles from Darjiling town at Hillside on Lebong Cart Road, works to preserve the cultural heritage of Tibetans and to provide gainful employment to many of the refugees who fled their country in 1950 on the Chinese occupation of Tibet. With generous assistance from various non-official agencies like the American Emergency Committee for Tibetan Refugees, the National Christian Council of India, the World Church Service, the Catholic Relief Services etc. the Centre has already earned a reputation at home and abroad for its artistic handicrafts like carpet weaving, bell-metal work, wood carving, leather products and wooden masks. During 1966-67 the gross sales of the organization amounted to Rs. 1,86,675 which earned a foreign exchange of Rs. 78,000. The Centre's products are sold to such countries as France, West Germany, Denmark, Norway, Belgium, England, the U.S.A., Thailand, Hongkong and Japan.

Other Handicrafts

Decorative Nepali *Kukris* (knives) are made at Ghum and Sevoke (Sukhiapokhri P.S.). Baskets are made in Darjiling and Kalimpong. Jackets, Tibetan hats and Hanju coats (the latter made from handloom cloth) are produced in Darjiling town. Kalimpong is long known as a centre for manufacturing handmade paper from barks.

At the State-level competition held every year, the artisans of the district won several prizes in 1965-66 and 1966-67. Shri Bakraj Sakhya of Darjiling was awarded a National Prize of Rs. 1,000 in 1965 for his efficiency in craftsmanship.

In 1967-68 there were 9 sales emporia in the district run by the State Government, the Co-operative Union, the Gandhi Smarak Nidhi, the Khadi Bhandar and the Abhoy Asram, of which 5 were located at Siliguri, 3 at Darjiling and 1 at Kalimpong. They played their part in popularizing the handicrafts of the district.

Sales emporia

Besides the Directorate of Industries, which looks after large scale industries, and the Directorate of Cottage and Small-Scale Industries, which assists small-scale and cottage industries, the Rural Industries Project was launched in this district in 1963 by the Planning Commission for promoting the rural industries exclusively. While the Block Development Officers can sanction industrial loans up to Rs. 400 under the Bengal State Aid to Industries Act on certain conditions, the District Industrial Officer is empowered to sanction similar loans up to Rs. Rs. 2000. For the Deputy Commissioner of the district, the Project Officer (Rural Industries Project) and the Registrar of Co-operative Societies, West Bengal the upper limit of such loans is fixed at Rs. 10,000, the latter being authorized to grant loans only to industries co-operatives.

State aid to industries

The following statement indicates the quantum of loan disbursed by the Deputy Commissioner, Darjiling under the Bengal State Aid to Industries Act between 1962-65 and 1966-67.

Year	No. of Applicants	Amount (in Rs.)
1962-63	8	17,400
1963-64	10	31,000
1964-65	12	42,000
1965-66	34	67,450
1966-67	23	77,500
Total	87	2,35,350

In 1970-71, the Deputy Commissioner advanced loans to the S.S.I. units to the extent of Rs. 44,500, 13 units being assisted. The total amount of S.S.I. advances of the commercial banks in the district as on 30th June 1971 was Rs. 25.87 lakhs. Up to 1966-67 the Block Development Officers of the district sanctioned a total of Rs. 97,300 to 441 rural artisans under the B.S.A.I. Act while the Project Officer, Rural Industries Project, Darjiling disbursed Rs. 3,23,300 to 331 persons for the development of

various industries in the district. The following statement gives particulars of loans advanced by the Directorate of Cottage and Small-Scale Industries to various industrial units under the B.S.A.I. Act during First, Second and Third Plan periods.¹

Plan Period	Name of Industry	No. of Units	Amount Sanctioned (in Rs.)
First Plan	Taxidermy	1	1,000
Second Plan	Tailoring	2	2,000
	Steel Trunk	1	1,000
Third Plan	Tea Estate	1	25,000
	Umbrella making	1	16,000

Industrial co-operatives

In 1967-68 there were altogether 59 industrial co-operatives in the district working in various sectors, of which the more important were handicrafts, tailoring, dairy, fruit processing, carpentry, blacksmithy, sericulture, printing, transport, wool-knitting and tile making. The location and number of these co-operatives are given below :

Location	No. of co-operatives
Darjiling Circle	8
Bijanbari	7
Tukdah	4
Sukhiapokhri	6
Kurseong	2
Algarah Block Area	1
Gorubathan Block Area	1
Kalimpong Circle	6
Kalimpong Block I Area	5
Siliguri	19
Total	59

While some of these industrial co-operatives are well managed, there are others which suffer from inadequate management and supervision, lack of sufficient capital, raw materials and marketing facilities.

¹ Source : Secretary, Board of Industries, West Bengal.

The extent of financial assistance rendered by the West Bengal Khadi and Village Industries Board to various cottage industries of the district during 1961-62 to 1965-66 is indicated in the following statement.¹

Khadi and Village Industries Board

Name of Co-operative Society	Year	Nature of Production	Extent of assistance (in Rs.)	
			Loan	Grant
Kalimpong Leather Training Industrial Co-operative Society	1961-62	Leather products	13,375	7,500
Kurseong Cobblers' Co-operative Society	1965-66	Leather products	8,350	—
North Bengal Institution, Kurseong and Siliguri	1964-65	Leather products	15,802	—
Adarsa Gur and Khandsari Silpa Samavaya Samity Ltd., Darjiling	1962-63	Cane <i>gur</i>	4,198	—

The Cutlery Servicing Station was set up at Kurseong during the Second Plan period to render assistance by way of heat-treatment, grinding, polishing, electroplating, supply of modern machinery, improved raw-materials, power and technical know-how to traditional artisans manufacturing tea garden implements locally. By 1960 the local artisans were sufficiently trained to operate all modern machines in the workshop valued at about Rs. 93,000. The institution stands on 1.88 acres of land and its present assets are worth Rs. 2.42 lakhs. Besides the objectives mentioned above, the centre is itself engaged in producing pruning knives, pruning saw, skiffing knife, and forks of good quality for supply to the tea gardens, thus earning a sizeable amount of foreign exchange. The satisfactory progress of the Station is proved from the fact that the value of the implements produced and sold by it rose from Rs. 198 in 1958-59 to Rs. 88,000 in 1964-65. During the latter year a contract was signed with the Government of Bhutan for supply of 15,000 pieces of Bhutanese baggers. In addition the centre supplied agricultural implements to the Government of Sikkim and *kukris* to the Border Security Force and the State Forest Department. The Station also attends to orders received from tea gardens in the Jalpaiguri district and from horticulturists of Punjab and Jammu & Kashmir. In recent years its production programme has been diversified and manufacture of electric lamps, mild steel gates and grills etc. has been taken up.

Cutlery Servicing Station, Kurseong

¹ Source : Executive Officer, West Bengal khadi & Village Industries Board.

Industrial
Training
Institute, Tung

Established in 1962, the Industrial Training Institute, Tung is one of 18 such institutions in the State imparting training in both engineering and non-engineering trades. The engineering trades include jobs of fitter-mechanics, electricians, wiremen, motor-mechanics, carpenters and blacksmiths while tailoring, knitting with hand machines, book-binding, hand-composition, proof-reading, manufacture of footwear and suitcases are some of the non-engineering trades. The period of training varies from one to two years, the age of the trainees being, normally, 16 to 20 years. Successful trainees are awarded National Trade Certificates of the National Council for Training in Vocational Trades.

A new building, sufficiently large to accommodate 400 trainees, is now under construction. There is also a proposal for constructing a hostel for housing 150 boys. By introducing the type-writing and short-hand courses this institution has removed a long-felt need of the district. Between 1962 and 1967, the Institute sent up 455 trainees to appear in the All-India Final Trade Test and 95 per cent of them came out successful of whom about 75 per cent have found gainful employment in the North-East Frontier Railway, the Jaldhaka Project etc. The following statements give a curricular picture of the institution in recent years.

ENGINEERING TRADES

Type of training	No. of seats available	Duration of training (in months)	No. of persons trained	
			1964-65	1965-66
Wireman	32	18	12	—
Motor Mechanic	16	18	16	12
Fitter	48	18	37	21
Carpenter	16	18	2	4
Blacksmith	16	18	2	—
Electrician	16	18	9	—
Total	144	18	78	37

NON ENGINEERING TRADES

Type of training	No. of seats available	Duration of training (in months)	No. of persons trained		
			1962-63	1963-64	1964-65
Book-binding	16	12	9	7	5
Cutting and Tailoring	16	12	10	4	5
Printing machine operation	16	12	5	4	6
Manufacture of foot- wear	16	12	6	3	6
Knitting with hand and machine	16	12	3	5	7
Manufacture of leather goods	16	12	3	6	5
Hand composition and proof-reading	—	12	—	—	—
Total	96	—	36	29	39

The timber resources of the district being inexhaustible, the Directorate of Industries, West Bengal, set up in 1956 a training-cum-production centre for wood industries at Siliguri for opening employment opportunities to the local people as also to train them in carpentry so that after completion of the course, the successful trainees could either accept employment in the Centre itself or take up carpentry as a profession with financial assistance from Government, if necessary.

Training-cum-
Production Centre
for Wood
Industries,
Siliguri

The centre with 70 workers and 11 supervisory personnel has, so far, trained 250 boys in carpentry. In 1967, its installed machinery was valued at a little more than a lakh of rupees while the total production during 1966-67 was estimated at Rs. 2.30 lakhs. The products include mainly furniture, doors and panels, etc., which were supplied to the Governments of Sikkim and Bhutan, Indian Railways, the Defence Department, the Post and Telegraphs Department and various other Central and State Government Offices and private parties.

For increased production, the centre requires a seasoning chamber, the present supplier of seasoned wood being the Government saw mills at Siliguri. A large part of its stores is also kept at Matigara which is some distance away. Owing to these problems of space, some of the machines essential for further growth of the institution have not yet been installed. Having an easy access to raw materials and being situated at the biggest transport and commercial centre in North-East India, this institution at Siliguri is destined to grow as the difficulties mentioned above are gradually eliminated.

Rural Industries
Project

Some of the schemes formerly operating through the training-cum-production centres of various Blocks in the district have since been brought under the co-operative fold and co-operative societies have been formed with ex-trainees, the implements and furniture of the former training centres being handed over by Government to such co-operative societies. This project was started on 1st May 1965 with headquarters at Darjiling to implement the following programme : (a) Training of local people in different crafts for utilizing locally available raw-materials, (b) Helping rural artisans with financial aid and organising co-operatives amongst them, (c) Development of agro-industries like dairy-farming, poultry and piggery, and (d) Marketing of products of artisans, co-operative societies and other industrial units.

In 1965-66 the project covered 5 Development Blocks of the district through which various schemes were being implemented as shown in the following statement.

Name of Development Block	Area (in sq. miles)	Population	Name of the Scheme
Darjiling-Pulbazar	93.40	66,314	Bristle-dressing training, Carpentry, Dairy, Bee-keeping.
Kalimpong I	124.00	33,689	Fruit processing and preservation, Block-printing on textiles, Decorated wood-cum-metal craft, Sericulture training, Floriculture, Leather training, Bee-keeping, Wool knitting.
Kalimpong II	111.40	27,689	Cheese-making, Carpentry.
Siliguri-Phansidewa	124.40	69,847	Weaving, Carpentry.
Phansidewa-Kharibari	185.33	84,587	Tile making.

Bijanbari and Pulbazar are the principal collection centres for raw bristle which are exported mainly to Kanpur and Calcutta. A training centre for imparting lessons on grading, dressing and treatment of bristles was started at Bijanbari in February 1964 and the first batch of students completed their training in February 1965. A co-operative society of the ex-trainees has since been formed under the name of Bijanbari Bristle and Brushware Industrial Co-operative Ltd. In 1965-66 the production and sale figures of the training centre were Rs. 7,399 and Rs. 5,935 respectively.

Bijanbari and Pulbazar also serve as good collection centres for raw buffalo and cow hides which are exported by local merchants to Calcutta. A training-cum-production centre started here in March 1964 has been producing sole leather as detailed below.

Year	Production (in Rs.)	Sale (in Rs.)
1964-65	4,712	3,803
1965-66 (up to 31-12-65)	2,672	3,013

Although raw hides are locally available in plenty, tanning ingredients like *babul* bark, *goran* bark and myrobalan nuts have to be brought from Calcutta which raises the cost of production. Efforts are now being made to find out local substitutes and though myrobalan nuts grow at Goke and Tindharia, their availability in requisite quantities is yet to be ascertained.

In 1967-68 there were 24 industrial training centres in the district, some of which like the Kalimpong Arts and Crafts Industrial Co-operative Society, the Sericulture Training Centre at Kalimpong and the Industrial Training Institute at Tung have been described elsewhere in this chapter. Among the rest, mention may be made of the Cane and Bamboo Training Centre at Kalimpong, Wool and Cotton Weaving Centre at Darjiling, the Footwear Centre at Kurseong, the Brick-making Centre at Bidhannagar, Siliguri and the Food Processing Centre at Babupara, Siliguri. The carpentry training centres at Hanskhawa (Siliguri), Bijanbari, Mirik and Pedong also call for attention. The bee-keeping centres at Kalimpong, Relling and Bijanbari and the bristle-dressing and brushware training centre at the latter place are also worth mentioning. The Kurseong Polytechnic School and the Kalimpong Technical School are included among these 24 industrial training centres.

Industrial
training centres

The tile-making training centre at Phansidewa, inaugurated in 1964 under the Rural Industries Project, trained 51 students till the middle of 1966, the locality being ideally suited for such training because of ready availability of good quality soil from the banks of the Balasan river and a big market of its products at the fast growing town of Siliguri, 12 miles away. To handle the business effectively, the Phansidewa Tali Silpa Samabaya Samiti was started in 1965 with 30 members who raised a share capital of Rs. 1,000 and received from the Rural Industries Project a grant of Rs. 45,000 inclusive of capital goods, subsidy and emoluments of instructors. The co-operative pays its trainee-orkers Rs. 2 to Rs. 3 per day besides incentive bonus in deserving ses. Its production, except during the rainy season, is about 00 tiles a month. In its first year of operation, the society de a profit of about Rs. 3,000.

Tile-making
training Centre,
Phansidewa

Other schemes
under the Rural
Industries Project

Of the 14 schemes taken up in the district by the Rural Industries Project, sericulture, floriculture and knitting have registered a limited success while tile and brick-making appear to have a very good scope in the plains. Trained carpenters have not found any difficulty so far in getting suitable employment and their earnings vary from Rs. 3.00 to Rs. 5.00 a day. Some of the trained floriculturists of Kalimpong do a good business by selling flowers to wholesalers in Calcutta and Delhi.

Industrial
Potential and
Plans for future
development*

The potential resources of this sub-Himalayan district remain largely unexploited even today and except for the tea plantation industry, which also appears to have reached a stage of near-stagnation, the district has a languishing agrarian economy with hardly any industrial base. Broadly speaking, deficiencies of development components in a hilly terrain, inadequate fuel and power supply and insufficient transport and communication facilities have retarded the industrial growth of the district. The cottage and small scale industries, on the other hand, have neither prospered enough to generate surpluses for investment nor have they produced the kind of *entrepreneurs* required for new development.

The district is connected with the rest of West Bengal, Assam, Bihar and North India by metre gauge and broad gauge railways. The narrow gauge Darjiling Himalayan Railway meets at Siliguri with the metre gauge railway link to Assam and the recently completed broad gauge line connecting South-West Bengal. The New Jalpaiguri station, south of Siliguri town is the junction with transit facilities for the three railway systems. With the completion of the Farakka Barrage, a direct broad gauge link has been established with South-West Bengal. The district is also connected with the rest of West Bengal, Bihar, Assam and Sikkim by National Highway No. 31 and with Bhutan by the Indo-Bhutan Road. The Farakka Barrage has opened up a direct road link *via* National Highway No. 34 over the Ganga. The strategic Lateral Border Road along the north bank of the Ganga-Brahmaputra system links U.P., North Bengal and Assam to provide an excellent regional transport system, influencing the trade, commerce and industry of the district profoundly. The internal road network of the district needs strengthening and development to provide for future requirements of traffic.

Power

The river system of the district, dominated by the turbulent Tista, is of little use from the transport angle, though rich in hydro-electric potential. Water supply in the municipal areas is inadequate as the rain-fed rivers and rivulets are not perennial. Constant supply of water is, however, available from the major

*This Section is based on a Note received from the Director of Industries West Bengal.

snowfed rivers like the Tista, Mahanadi, Ramam, Balasan and Sivok. Underground water sources are plentiful in the foothills and the plains. There are 5 hydel power generating stations in the district with a total installed capacity of 21,128 kw and two diesel stations with an installed capacity of 2,261 kw, as listed below :

HYDEL STATIONS	Installed capacity (in kw.)	Planned capacity (in kw.)
Jaldhaka	2 × 9,000	1 × 9,000 (Stage I) 2 × 4,000 (Stage II)
Kurseong	1,248 (Stage I)	1,000 (Stage II)
Bijanbari	300	—
Sidrapong (Darjiling Municipality)	780	—
Singtom (Darjiling Municipality)	800	—
Little Rangit	—	2,000
Ramam	—	2 × 7,000
Gielkhola	—	167
Total	21,128	34,167
Diesel Stations, Siliguri	1,416	—
Lebong (Darjiling Municipality)	845	—
THERMAL STATIONS		
Siliguri Packaged Steam Plant	—	4 × 1,500
	23,389	40,167

There are, besides, numerous small hydel and diesel units for power generation in the tea gardens and other establishments.

Under the three Five-Year Plans, a number of training and development schemes and a Rural Industries Project were put into operation in the district under Government sponsorship. The Industrial School and Workshop, started in 1949 by taking over a private undertaking, is engaged in servicing the tea garden

Training and
Development

factories and training local craftsmen in mechanical and electrical trades. The training section was converted into a full-fledged industrial training institute in 1963 with facilities for imparting training in a number of electrical, mechanical and non-engineering trades in accordance with an all-India pattern. Its intake capacity is about 240 a year. During 1962-67, it sent up 455 trainees to various all-India trade tests, 95% of whom came out successful.

The Industrial Training Institute, Siliguri, was established in 1968 with an intake capacity of 336 students per year and having facilities for training in a number of mechanical, electrical and engineering trades. The Darjiling Polytechnic at Kurseong, the only of its kind in the district, was established in 1965 with an annual intake of 180 to train licentiates in civil, mechanical and electrical engineering. The North Bengal University, started in 1961 at Raja Rammohanpur (P.S. Siliguri), has faculties in science, commerce and humanities. The Jalpaiguri Engineering College, offering degree courses in civil, mechanical and electrical engineering, is located just outside the district boundary but within the Siliguri Planning Area and has an intake of 150 a year.

The Cutlery Servicing Station at Kurseong was established in 1957 with a well-equipped modern workshop for manufacturing tea garden implements and cutlery. It also provides technical service facilities to local artisans producing agricultural implements, *kukris*, etc. Up to 1965 it produced goods worth Rs. 4.53 lakhs.

The Training-cum-Production Centre for Wood Industries at Siliguri was established in 1956 with a mechanized carpentry works for manufacturing sophisticated furniture and woodworks and also for imparting training in modern carpentry. In 1966-67 it produced goods worth Rs. 2.30 lakhs. The Model Servicing Centre for Footwear at Kurseong was started in 1960-61 to provide common service facilities to local shoe-makers and cobblers.

The handloom industry of the district made good progress during the first three Five Year Plans and in 1965 accounted for a production of 1.6 lakh yards with 151 registered looms. At the end of the Third Plan, there were 4 powerloom co-operative societies in the district with 64 powerlooms.

The Rural Industries Project was started in the district in 1963-64, and covered the Siliguri-Naksalbari, Phansidewa-Kharibari, Darjiling-Pulbazar, Kalimpong-I and Kalimpong-II Blocks. The total number of persons trained in different crafts under the Project, namely, wool knitting, dressing of bristles, tanning, sericulture, floriculture, carpentry etc. was 200 up to 31st March 1966. The traditional handicrafts of the district like woodcraft, embroidery, woolcraft, bamboocraft, Lepcha textiles, etc., are

assisted by Government in the matter of finance, training, supply of raw materials and award of prizes, etc. Private organizations like the Kalimpong Arts and Crafts and the Tibetan Refugee Self-help Centre are also doing commendable work in the field. There are 58 industrial co-operatives in the district engaged in various cottage industries and trades, such as handicrafts, tailoring, dairying, food processing, carpentry, blacksmithy, sericulture, wool knitting, brick and tile making.

The Siliguri Planning Organization was set up by the Development and Planning (Town and Country Planning) Department for drawing up a comprehensive development plan for Siliguri and its neighbourhood covering an area of 87 sq. miles. Its interim development plan, already published, highlights the growth of Siliguri as a focal point of the communication system of North-East India and as a terminus for the product pipeline from the Assam Refineries. The interim plan lays down an outline for development with emphasis on trade, commerce and industry based on agricultural, forest and mountain resources.

Development of
the Siliguri area

With the completion of the Farakka Barrage and the Lateral Border Roads and the implementation of the Siliguri Development Plan and increase in power generation and distribution, the place has developed. Siliguri as a strategic transit point for goods and services required for the whole of North-East India is destined to occupy a very vital position in the economy of this part of the country.

As already indicated, the future industrial development of the district will be largely need-based, catering to the requirements of the growing urban population, the tea plantations, the factories, agriculture, dairy farming and transportation. Agro-based developments in some specific fields, like sugar, tobacco, fruit preservation, pulp board and paper, etc., are also feasible. Demand for engineering products and services, particularly implements for tea gardens, agricultural machinery and domestic hardware, is also likely to support small and medium-scale ventures. Besides, maintenance and servicing facilities for all manner of vehicles will also be required for a major transit centre like Siliguri. A possible phyto-chemical development based on the medicinal plantations is also likely in the Siliguri-Jalpaiguri area. The cool climate of the hills may also attract light precision engineering industries like manufacture of instruments, watches and clocks, etc. In the field of textiles, there is already a need for a spinning mill for supplying cotton yarn to the growing handloom and powerloom industry. Waste wool and cotton spinning as also manufacture of cheap blankets and warm hosiery products also appear to have good prospects.

In 1967 there were 32 labour unions functioning in the district of which the top places, in point of membership strength, were

Labour and
employers,
Organizations

occupied by the Darjiling District Chia Kaman Mazdur Union with 7,321, the Darjiling Chia Kaman Sramik Sangha with 4,644, the Darjiling Motor Automobile Karmachari Union with 4,504, and the Terai Plantation Workers' Union with 4,504 members. Chronologically, the first four places went to the Terai Chai Bagan Karmi Sangha with headquarters at Bagdogra, the Darjiling District Chia Kaman Mazdur Union with headquarters at Darjiling, the Darjiling Kulain Bagan Mazdur Sangha with headquarters at Mangpu and the Siliguri Municipal Employees' Union with headquarters at Siliguri which were established on 2nd February 1948, 3rd August 1951, 30th August 1952 and 15th July 1955 respectively. Of the 32 labour unions, as many as 14 functioned independently, 4 were affiliated to the West Bengal Municipal Employees' Federation, 3 to the Hind Mazdur Sabha, 2 each to the All-India Trade Union Congress, Indian National Trade Union Congress, Bengal Provincial National Trade Union Congress and the Communist Party of India (Marxist), and one each to the United Trades Union Congress and the Bengal Provincial Trade Union Congress. The affiliation of the Engineering Workers' Union of Siliguri to the Hind Mazdur Sabha was cancelled in February, 1968.

A complete list of the labour unions functioning in the Darjiling district as on 31 March 1967, giving their names, addresses, membership, registered numbers, respective dates of registration and affiliation is given in an Appendix at the end of this chapter.

Labour unrest

In recent years, labour unrest was neither extensive nor frequent in the district; the few cases reported originated mainly from demands for better wages, bonus and other amenities as also as protests against retrenchment of workers.

The following statement gives particulars of work-stoppages in the registered factories of the district from 1963 to 1967.¹

Causes	Year and number of cases				
	1963	1964	1965	1966	1967
Discharge, Dismissal and Retrenchment	2	—	—	1	2
Charge-sheeting, Suspension and Lay off	—	—	1	1	—
Miscellaneous	—	1	3	5	23
Demand for higher wages	1	8	8	2	8
Demand for bonus	1	2	2	5	1
All combined	4	11	14	14	34

¹ Source : Deputy Labour Commissioner (Statistics), West Bengal.

The results of these work-stoppages are shown in the following statement :

Results	1963	1964	1965	1966	1967
Successful	2	6	6	7	4
Partially successful	—	—	1	1	7
Unsuccessful	2	5	3	1	7
Indefinite	—	—	4	5	16
All combined	4	11	14	14	34

The statement below gives details of the number of strikes and lockouts in the district during the said 5-year period when no industrial dispute was sent for adjudication.

Year	No. of strikes	No. of lockouts	Total
1963	4	—	4
1964	10	1	11
1965	14	—	14
1966	9	5	14
1967	32	2	34

The employers' organizations in the district are not many. Besides the Kalimpong Chamber of Commerce and Industries and the North Bengal Chamber of Commerce and Industries with its headquarters at Siliguri, the Indian Tea Association has a branch in Darjiling town, the Indian Tea Planters' Association has a branch at Bagdogra while the headquarters of the Terai Indian Planters' Association is located at Matigara.

Employers' organizations

As a part of its labour welfare programme, the Labour Directorate, West Bengal, runs several Labour Welfare Centres in the district. The following statement would indicate the working of these institutions.

Potato Multipli-
cation Farm

Name of Centre	Industrial labour	Others	Children in primary classes	Students in adult classes	Students in sewing & knitting classes	Workers attending dispensaries
Soureni	87	40	8	5	11	—
Pokhriabong	81	29	18	8	—	—
Mahanadi	170	42	27	17	14	22
Mangpu	72	20	20	—	10	—
Munsong	63	4	23	—	10	—
Maditi	144	14	25	3	15	—
Bagdogra	87	29	26	3	10	—
Sonada	102	21	46	13	—	11
Ging	43	12	10	7	—	15

These centres are mostly located in the plantation areas usually in close proximity to labour lines and colonies. Those located at Ging, Sonada and Mahanadi have a dispensary each while all of them provide various facilities for education, recreation, physical culture and craft training and free medical aid for the labourers and their dependants. Evening classes are held in some centres for educating the adults. A Model Labour Welfare Centre is already functioning at Mangpu and another at the Syadabad Tea Estate. Film shows and cultural functions are held from time to time at the welfare centres which also organize sports and other outdoor activities.

The registered factories of the district are governed by the provisions of the Minimum Wages Act of 1948, as amended from time to time. Under this Act, the wages are fixed on the basis of Average Consumers' Price Index and are, therefore, subject to fluctuations. There is an Inspector of Minimum Wages at Siliguri under the West Bengal Labour Directorate who supervises the effective implementation of the provisions of the said Act in the industrial establishments of the district.

APPENDIX

LABOUR UNIONS IN DARJILING DISTRICT
(As on 31st March 1967)*

Sl. No.	Regd. No.	Name of Union	Address	Member-ship	Date of Registration	Affiliated to
1.	2256	Darjiling District Chia Kaman Mazdur Union	Chak Bazar, Darjiling	7,321	3-8-51	A.I.T.U.C.
2.	4770	Darjiling Chia Kaman Sramik Sangha	Ladenla Road, Darjiling	4,644	3-12-59	Independent
3.	7588	Darjiling Motor Automobile Karmachari Union	45, "G" Building, Darjiling	4,504	28-10-67	I.N.T.U.C.
4.	7588	Terai Plantation Workers' Union	Bagdogra, Darjiling	4,504	28-10-67	I.N.T.U.C.
5.	2469	Darjiling Kulain Bagan Mazdur Sangha	Mangpu, Darjiling	1,788	30-8-52	Independent
6.	5069	West Bengal Chia Bagan Karmachari Mazdur Union	P.O. Kamala Bagan, Darjiling	1,343	23-11-60	B.P.N.T.U.C.
7.	7716	Darjiling Chai Bagan Workers' Union	Bagdogra, Darjiling	587	6-2-68	U.T.U.C.
8.	4838	Terai Cha Bagan Mazdur Union	Mahanandapara, Siliguri	500	19-2-60	B.P.N.T.U.C.
9.	6173	Darjiling Municipal Karmachari Union	34, Municipal Building "D" Darjiling	432	27-11-67	W.B.M.E.F.
10.	6238	United Tea Workers' Union	P.O. Belgachhia, Darjiling	436	9-3-65	H.M.S.
11.	7611	North Bengal Motor Karni Sangha (Bus Workers')	Mal, Jalpaiguri	308	13-11-67	H.M.S.
12.	1330	Terai Cha Bagan Karni Sangha	Bagdogra, Darjiling	278	2-2-48	Independent
13.	7449	Siliguri Merchants' Association	Station Road, Siliguri	218	16-9-67	Independent

* The details have been furnished by the Additional Registrar of Trade Unions, West Bengal. A.I.T.U.C. means All India Trade Union Congress ; I.N.T.U.C., Indian National Trade Union Congress ; B.P.N.T.U.C., Bengal Provincial National Trade Union Congress ; W.B.M.E.F. West Bengal Municipal Employees' Federation ; H.M.S., Hind Mazdoor Sabha and C.P.I.(M), Communist Party of India (Marxist). U.T.U.C., United Trades Union Congress.

Sl. No.	Regd. No.	Name of Union	Address	Member-ship	Date of Registration	Affiliated to
14.	6466	Drivers' Association, Siliguri	Mahabir Station Siliguri	208	23-11-65	Independent
15.	4778	Dr. Graham's Sons' Labour Union	Kalimpong, Darjiling	173	13-1-60	Independent
16.	4234	Darjiling Mercantile Employees' Union	Victoria-falls, Darjiling	124	14-1-58	Independent
17.	7447	Kurseong Municipal Employees' Union	Hill Cart Road, Kurseong	123	16-9-67	W.B.M.E.F.
18.	6962	Central Road Transport Corporation Ltd. Workers' Union	Pradhannagar, Darjiling	108	26-5-67	Organised by C.P.I.(M)
19.	6087	Municipal Mazdur Union, Siliguri	Hill Cart Road, Darjiling	100	11-8-64	Independent
20.	711	S. B. Dey T.B. Sanatorium Employees' Union	Dow Hill Road, Kurseong	99	16-6-67	Independent
21.	7636	Kalimpong Municipal Employees' Union	D. S. Gurung Road, Darjiling	98	27-11-67	W.B.M.E.F.
22.	6079	Darjiling Hotel & Club Workers' Union	Ladenla Road, Darjiling	93	5-8-64	Independent
23.	6219	Siliguri Govt. Saw Mill Workers' Union	Mahanandapara, Siliguri	90	22-2-65	Independent
24.	6557	Siliguri Retail Cloth Dealers' Association	Nayabazar, Siliguri	89	12-5-66	Independent
25.	3448	Siliguri Municipal Employees' Union	Municipal Office, Siliguri	84	15-7-55	W.B.M.E.F.
26.	7749	Plywood & Saw Mill Workers' Union	Hill Cart Road, Siliguri	70	7-3-68	A.I.T.U.C.
27.	6048	Sree Ramkrishna Industries & More Brother Karmi Union	Milan Palli, Siliguri	62	29-6-64	H.M.S.
28.	7444	Darjiling District Motor Transport Workers' Union	Barrack Motor Stand, Darjiling	44	27-6-67	Independent

INDUSTRIES

267

Sl. No.	Regd. No.	Name of Union	Address	Member-ship	Date of Regis- tration	Affiliated to
29.	4720	Bagdogra Plywood Mazdur Union	Bagdogra, Darjiling	42	3-10-59	B.P.T.U.C.
30.	7266	Howrah Motor Workers' & Employees' Union	Siliguri, Darjiling	36	16-8-67	Organised by C.P.I.(M)
31.	6080	Engineering Workers' Union	Milan Palli, Siliguri	28	5-8-64	H.M.S. (can- celled on 21-2-68)
32.	7586	Kurseong Cutlery Servicing Station Piece-Rate Workers' Union	Burdwan Road, Kurseong	17	28-10-67	Independent



CHAPTER V

BANKING, TRADE AND COMMERCE

BANKING AND FINANCE

History of indige- nous banking in the district

Except for a reference in the Report of the Bengal Provincial Banking Enquiry Committee (1929-30), no other information on the indigenous system of banking in the district is available. According to the evidence of the then Deputy Commissioner, Darjiling before the said Committee, Marwari bankers transacted banking business in Darjiling, Kurseong and Kalimpong.¹ The Subdivisional Officer, Kalimpong provided further information by listing the names of some important firms operating in this field, namely, (i) Lachmandas Ramchandra, (ii) Purukhchand Lakhmichand, (iii) Koramal Jethmul, (iv) Joteram Ramrikhdas, (v) Siram Mulchand, and (vi) Khetsidas Ramlal. Besides banking, they also carried on trade in piece-goods, wool, cardamom, grains etc. employing about 75 per cent of their resources in it. They obtained their funds from the proceeds of business as also from loans and financed agriculture, trade and contract work etc. charging interests varying from 9 to 18 per cent per annum on big loans advanced to respectable persons and up to 37½ per cent per annum on minor loans granted generally for a year. They used two kinds of *hundis*, one paid on presentation and the other after a certain period as stipulated in them. In the case of banks run by Lachmandas Ramchandra and Purukhchand Lakhmichand, who had been in the business for long, the interest paid on deposits for one year was 5 per cent ; for nine months, 4½ per cent ; for six months, 4 per cent and on current accounts, 3 per cent. Even now the financing of trade and agriculture in the district is mostly in the hands of the Marwaris and Biharis.² Transactions in cash or kind between the private credit agencies and the agriculturists are now regulated by the Bengal Money-Lenders Act of 1940.

Post Office Savings Bank

The Deputy Commissioner, Darjiling and the Subdivisional Officer, Kalimpong stated before the Bengal Provincial Banking Enquiry Committee (1929-30) that the farmers of the district depended mainly on co-operative banks and *muhajans* (indigenous money-lenders) for agricultural credit. The rate of interest charged by the co-operative banks was 12½ per cent per annum while that by the money-lenders varied between 30 and 60 per cent per annum. The latter further compounded the interest accrued at the end of each year to the principal. Banks lent on the security of landed properties, but the money-lenders relied on mortgage of ornaments. Paddy loans carried interest ranging from 20 to

1 Report of the Bengal Provincial Banking Enquiry Committee, 1929-30, Vol. II¹ Part—I; Calcutta 1930; p. 165. Most of the information contained in the first two paragraphs of this Chapter has been obtained from the said Report.
2 Source : Deputy Commissioner, Darjiling.

50 per cent and was usually secured on the next harvest. The proportion of secured and unsecured loans was 1:3, which encouraged usury as a necessary cover. In case of default, realization of loans was effected through the civil courts which usually ordered the farmer's land or other properties to be sold. In the opinion of the Subdivisional Officer, Kalimpong agricultural indebtedness was on the increase in his area. The average per capita debt of members of rural co-operative societies to their societies and money-lenders amounted to Rs. 172 in 1929.

A few of the well-known joint stock banks have their branches in the municipal towns of the district which play an important role in harnessing the savings of the local people. The State Bank of India has branches at Darjiling, Siliguri, Kurseong and Kalimpong which were opened on 18th August 1923, 24th October 1957, 28th February 1958 and 7th May 1962 respectively. Besides normal banking business, namely acceptance of demand and time deposits, purchase and sale of demand drafts, shares and securities, collection and negotiation of outstation cheques and instruments, advances to merchants and members of the public against authorized securities, transacting foreign exchange business etc., the State Bank conducts government business also as agent of the Reserve Bank of India. Its Darjiling Branch further played an important role in financing the tea industry during 1923-37. Recently, it has started financing this industry anew. In 1966, its deposits totalled Rs. 4,289.37 lakhs and its advances Rs. 67.7 lakhs.¹ The United Bank of India having a branch at Siliguri since 22nd February 1949, had deposits of Rs. 77.05 lakhs during 1966, while its advances amounted to Rs. 12.69 lakhs during the same year.² The National & Grindlays Bank has a branch at Darjiling town and the Central Bank of India at Kalimpong and Siliguri, while the Punjab National Bank and United Commercial Bank have each branches at Siliguri, the dates of their opening being 18 March 1935, 7 July 1943, 10 October 1944, 21 December 1936 and 11 May 1965 respectively.³ The total deposits of the State Bank of India and the nationalized banks in the district amounted to Rs. 231.61 lakhs as on 30 June 1971. The growth of deposits in the year June 1970--June 1971 was 18.21%. The total advances of the banks in the public sector amounted to Rs. 157.59 lakhs on 30 June 1971.⁴

Joint-stock Banks

1 Source : Agent, State Bank of India, Darjiling.

2 Source : Economist, Department of Economic Studies, United Bank of India Calcutta.

3 Source : Joint Chief Officer, Reserve Bank of India, Department of Banking operations, Calcutta and Chief Officer, Reserve Bank of India, Department of Banking operations and Development, Bombay.

4 *Lead Bank Survey Report of the Central Bank of India, Darjeeling*; Calcutta 1971; p. 67.

Post Office
Savings Bank

The Post Offices also play their part in harnessing the savings of the people, particularly in rural areas, through ordinary and cumulative time-deposits and the sale of savings certificates of various categories. The following table gives figures of such savings during the years 1955-56, 1960-61 and 1965-66.¹

Year	Savings Certificates (Rs.)	Post Office Savings Bank & Cumulative Time Deposits (Rs.)
1955-56	5,54,410	37,67,635
1960-61	11,31,495	51,48,455
1965-66	10,84,265	79,77,335

The Post Office Savings Banks had an aggregate balance of Rs. 250.51 lakhs as on 31 August 1971 against Rs. 215.82 lakhs as on 31 August 1969. National Savings Certificates for Rs. 8.75 lakhs were sold from September 1970 to August 1971.²

Co-operative banks
& Credit societies

In order to co-ordinate the activities of rural co-operative credit societies and to finance them, the Kalimpong Central Co-operative Bank was set up in 1911 for societies in Kalimpong subdivision and the Darjiling Central Co-operative Bank in 1914 for societies in the Sadar and Kurseong subdivisions. In 1919, the Pedong Central Co-operative Bank came into being at Pedong in Kalimpong subdivision and it took over some of the work of the Kalimpong Central Co-operative Bank in the interest of efficiency. The Darjiling Co-operative Banking Union Ltd. was established in 1955 solely for the purpose of financing crop loans to rural credit societies in the Sadar, Kalimpong and Kurseong subdivisions. Under a subsequent re-organizational scheme of the government, the Kalimpong Central Co-operative Bank Ltd., the Pedong Central Co-operative Bank Ltd. and the Darjiling Co-operative Banking Union Ltd. were amalgamated in 1959 to form one co-operative bank styled as the Darjiling District Central Co-operative Bank Ltd. with jurisdiction over the whole district excepting the Siliguri subdivision which was looked after by the Jalpaiguri District Central Co-operative Bank Ltd. The Darjiling Central Co-operative Bank, inactive since 1955, was placed under liquidation in 1959. The financial position of the Darjiling District Central Co-operative Bank Ltd. during 1966-67 (which had then a membership of 247) is indicated below :

	Rs.
Working capital	8,68,840
Loans issued	42,780
Loans outstanding	3,92,896
Deposits	2,13,275
Loss	24,325

¹ Source : Post Master, Darjiling.

² *Lead Bank Survey Report of the Central Bank of India, Darjeeling, Calcutta* 1971; p. 67.

In the same year, the district had 196 agricultural co-operative credit societies with an overall membership of 12,151 and a total working capital of Rs. 9,46,389.

The total deposits and advances of banks in the Co-operative sector as on 30 June 1971 were Rs. 1½ lakhs and Rs. 12 lakhs respectively.¹

The Life Insurance Corporation of India has at present two units operating at Darjiling and Siliguri. During 1967-68 it did a total business of Rs. 215.91 lakhs for 3,757 policies as against Rs. 190.52 lakhs for 3,405 policies in 1966-67 and Rs. 205.97 lakhs for 3,743 policies in 1965-66. The total amount of premium collected by the L. I. C. during the year 1970 is Rs. 41.45 lakhs and the total amount of the policies in force as on 31 March 1971 was Rs. 14.43 crores. In 1970-71 the number of policies issued was 4010 and the sum assured was Rs. 294.07 lakhs for these policies.²

Life Insurance

Financial assistance rendered by the State Government towards industrial development of the district has already been discussed in Chapter IV. Besides, the West Bengal Financial Corporation sanctioned and disbursed Rs. 4 lakhs to one industrial unit during 1965-66.³

State Assistance
to industrial
development

The geographical position of the district led it to maintain close commercial relations with Nepal, Sikkim, Bhutan and Tibet. In the early eighties of the last century frontier trade with Nepal was registered at Naksalbari, Ghum and Kanjilia.⁴ The imports consisted chiefly of cattle, gram and pulses, rice and other rain crops, *ghi* (clarified butter), saltpetre, mustard seed and linseed while exports included cattle, raw cotton, piece-goods (European and Indian), brass, copper, iron, salt, sugar, spices and wool (manufactured).⁵ In the first decade of the present century, Sukhiapokhri and Kanjilia were the registering stations for goods imported from or exported to that country, the articles of trade remaining almost the same.⁶ In 1921-22 the value of imports from Nepal registered at the stations of Sukhiapokhri, Singla, Pulbazar and Rangit was Rs. 63.62 lakhs and consisted chiefly of animals worth Rs. 27.80 lakhs, fruits, vegetables and nuts Rs. 27.41 lakhs, *ghi* Rs. 1.19 lakhs and grains and pulses Rs. 0.75 lakhs; while exports, valued at Rs. 4.55 lakhs, consisted chiefly

Trade & Commerce
Trans-frontier
trade

1 Source : Assistant Registrar of Co-operative Societies, Darjiling and *Lead Bank Survey Report for Darjeeling*, 1971.

2 Source : Zonal Manager, Life Insurance Corporation of India, Calcutta and *Lead Bank Survey Report for Darjeeling*, 1971.

3 Source : Secretary, West Bengal Financial Corporation, Calcutta.

4 *Report on the External Trade of Bengal with Nepal, Sikkim and Bhutan for the year 1880-81*. Government of Bengal, Calcutta, 1881, pp. II-III.

5 *op. cit.* p. 5f.

6 L.S.S.O' Malley—*Bengal District Gazetteers; Darjeeling*; Calcutta, 1907; pp. 129-30.

of cotton manufactures Rs. 2.11 lakhs, rice Rs. 0.07 lakhs, grains and pulses Rs. 0.5 lakhs, metals and manufactures thereof Rs. 0.46 lakhs, petroleum Rs. 0.3 lakhs and salt Rs. 0.42 lakhs.¹ Writing in 1947, Dash reported that Pulbazar-Bijanbari handled exports of rice, mustard oil, cloth, salt, pulses, kerosene oil, copper and brass-sheets, cotton yarn, bar iron, wheat products and sugar etc., which were valued at Rs. 3.15 lakhs a year.² The imports were potatoes, cardamoms, *chirata*, *majinth*, *ghi* and butter, vegetables, poultry and eggs, slaughter animals, maize, millet, bristles and black *dal* (pulses).³ The commodities passing through Sukhiapokhri were similar in description and their export accounted for Rs. 7 lakhs annually. The annual import of potatoes along this route was about 24 thousand quintals.⁴ The main export commodities passing through Naksalbari and Adhikari were cotton cloth, salt, copper and brass-sheets, cotton yarn, bar iron, kerosene oil and sugar of an estimated annual value of Rs. 2.35 lakhs. Annual imports were about 38 thousand quintals of rice, mustard oil of the value of Rs. 25,000 and small quantities of maize and potatoes.⁵ Galgalia handled practically all the imports of rice and paddy from Nepal.⁶ At present Sukhiapokhri serves as the only registering station in the district for commodities exported to or imported from Nepal. In 1967, the chief articles of export passing through this station are mentioned below along with their volume and value : Iron ore and concentrates (except iron pyrites) 1,205 tonnes, Rs. 61.97 lakhs ; biscuits 4,203 quintals, Rs. 37.28 lakhs ; longcloth, poplin, coatings 2.08 lakh sq. metres, Rs. 3.01 lakhs ; umbrellas 1,595 pieces, Rs. 0.12 lakhs ; handloom 13 quintals, Rs. 0.10 lakhs ; soaps 38 quintals, Rs. 0.10 lakhs and *saris* 3,000 metres, Rs. 0.37 lakhs.⁷ On the import side potatoes, fresh vegetables, brooms, *chirata* etc. topped the list during the first six months of 1967, the total value of the imports being only Rs. 1.2 lakhs.⁸

Sikkim

In 1880-81, trade with Sikkim was registered at Pedong and Rangit. Imports consisting chiefly of horses, other cattle, food-grains, brass-ware, *ghi*, salt etc. and exports of cattle, European piece-goods, brass and copper, salt and tobacco etc. were valued at a total of Rs. 1.68 lakhs and Rs. 0.81 lakhs respectively. In 1900-01 the value of imports consisting of sheep, goats, other animals, fruits, vegetables, nuts, grain and pulse, *ghi*, spices etc. was estimated at Rs. 4.21 lakhs and exports of piece-goods

1 *The Trade of Bengal with Nepal, Tibet, Sikkim and Bhutan in 1922*, Government of Bengal, Calcutta, 1922. pp. 111, 4ff.

2 A. J. Dash—*Bengal District Gazetteers : Darjeeling*; Calcutta, 1947; p. 169.

3-4 *loc. cit.*

5-6 *op. cit.* p. 170.

7-8 Source : Director-General of Commercial Intelligence & Statistics, Government of India, Calcutta.

(European and Indian), rice and salt at Rs. 2.46 lakhs.¹ In 1921-22, Pulbazar, Singla, Rangit, 15th-mile Rangit, Mullighat, Pedong and Lava served as the registering stations for commodities exported to or imported from Sikkim when the value of both exports and imports rose considerably. On the import side the largest single item falling under the head fruits, vegetables and nuts accounted for Rs. 49.83 lakhs followed by animals, Rs. 6.83 lakhs, spices Rs. 5.35 lakhs, grains and pulses Rs. 3.69 lakhs and *ghi* Rs. 0.67 lakhs, making for a total of Rs. 63.59 lakhs including other miscellaneous commodities. The principal articles of export were cotton manufactures, grain and pulse, metals and manufactures thereof, which made up a total of Rs. 13.13 lakhs during the same year.² As noticed by Dash in 1947, the commodities imported from Sikkim consisted chiefly of oranges and cardamoms. Apples, vegetables, sheep and goats and a small quantity of musk were also imported. "In 1943-44, the Sikkim Darbar, controlling all the oranges produced in the State, exported Sikkim oranges required for the army to the value of Rs. 10 lakhs and for civilian consumption to the value of Rs. 5 lakhs. Sikkim cardamoms are generally of better quality than those of the Darjeeling district and Sikkim output passing through the Kalimpong Subdivision is estimated to be 25,000 maunds (9,328 quintals) annually.

"The Sikkim bazars at Rapo, Rhenok, Rangli, Namchi and Soren used to get their supplies from Kalimpong. An area of Sikkim near Tista Bazar depended entirely on that bazar for its supplies of food and other commodities. Since 1942, supplies have been interrupted and these parts of Sikkim have been importing by arrangement with suppliers at Calcutta and elsewhere. Only about 2 to 3 per cent of Kalimpong's transfrontier trade is with Sikkim....

"The trade passing through the Singla Bazar was mainly trans-frontier with Sikkim, local trade being small. Exports were rice, mustard oil, cloth, salt, pulses, kerosene oil, copper and brass sheets, cotton yarn, bar iron, wheat products and sugar of a total annual value of Rs. 75,000. Imports from Sikkim are fruit, potatoes, cardamoms, chirata, ghee, maize, millet and black dal. This bazar has lost its former importance in recent times as most of its trade has moved over to Nayanbazar in Sikkim."³ Even now, trade with Sikkim is more or less of the same pattern, orange and cardamom occupying the top places on the import side.

1 *The Trade of Bengal with Nepal, Tibet, Sikkim and Bhutan for the official year ending March 31, 1901*; Government of Bengal, Calcutta; pp. 1ff.

The Trade of Bengal with Nepal, Tibet, Sikkim and Bhutan in 1920-22; Government of Bengal, Calcutta, 1922; p. III.

3 A. J. Dash—*Bengal District Gazetteers: Darjeeling*; Calcutta, 1947, pp. 168-69.

Bhutan

In the beginning of the present century trade with Bhutan passed through Labha and Pedong. O'Malley noticed that a sizable quantity of Bhutanese silk fabrics was imported into the district around 1907.¹ Imports from Bhutan during 1921-22 consisted of fruits, vegetables, oil seeds, animals etc. worth Rs. 5.45 lakhs while the exports comprised cotton (manufactured), piece-goods (foreign), betel-nuts and other spices etc. valued at Rs. 2.01 lakhs.² In 1947, Dash observed that "the Bhutan frontier marches with Kalimpong Subdivision but very little trade crosses it or proceeds down the Jaldhaka valley to the plains. Only 2 or 3 per cent of Kalimpong's trans-frontier trade is with Bhutan. Imports from Bhutan to Kalimpong are small quantities of wax, musk, bristles and lac. The smallness of the trade is due to the physical obstacles ; more traversable trade routes exist further east between Bhutan and Assam."³

Tibet

Trade with Tibet was once a flourishing one. Early in this century, exports to Tibet consisted chiefly of cotton piece-goods of European manufacture, and the imports of wool.⁴ Besides, cotton yarn, silver, copper, brass and iron sheets, rice, maize and tobacco were also exported while yaks' tails, musk, horses, mules, sheep and blankets formed other items of import.⁵ The imports and exports during 1921-22 were valued at Rs. 31.89 lakhs and Rs. 14.99 lakhs respectively.⁶ Writing in 1947, Dash observed: "Wool is the most valuable commodity imported from Tibet and it is the wool trade which has been mainly responsible for the importance of Kalimpong as a business centre. Over one lakh maunds of wool (3,846 tons) arrive annually in Kalimpong on caravans of mules conducted by Tibetans and in addition about 19,000 maunds are carted from Gangtok to Kalimpong. Practically none of the wool is consumed locally ; it is all sorted and baled in warehouses in Kalimpong bazar and then exported to the plains. Formerly, Kalimpong was only a receiving centre and all the wool received was despatched in its original state to Calcutta where sorting and baling was carried out for export to Liverpool. Sorting and baling in Kalimpong ready for shipment was encouraged by the entry of American merchants into the market. Since 1930 Kalimpong balers have shipped direct to America.

1 L.S.S.O' Malley—*Bengal District Gazetteers :Darjeeling*; Calcutta, 1907; p. 129.

2 *The Trade of Bengal with Nepal, Tibet, Sikkim and Bhutan in 1921-22*, Government of Bengal, Calcutta, 1922; p. 21.

3 A. J. Dash—*Bengal District Gazetteers : Darjeeling*; Calcutta, 1947; p. 166.

4-5 L.S.S.O' Malley—*op. cit.*, pp. 129-30.

6 *The Trade of Bengal with Nepal, Tibet, Sikkim and Bhutan in 1921-22*, Government of Bengal, Calcutta, 1922; p. 21.

"Next in value to wool as an import is musk, which mainly comes from the Tibetan province of Kham. Ninety per cent of the trade is in the hands of Nepalis who buy in Tibet and distribute in Kalimpong. Before 1942, Calcutta was the centre through which it was distributed. The Punjab is the largest consumer but quantities was exported to Arabia *via* Bombay. Working capital is employed for a turnover of Rs. 30,00,000.

"The trade in furs has a turnover of Rs. 3,00,000 and engages a number of Tibetans, Nepalis, Chinese and Kashmir Mussalmans. The trade is for export to America and England.

"Yaks' tails are imported to an annual value of Rs. 2,00,000. These goods are handled by Chinese and Behari merchants who find Madras providing the largest market. Ponies and mules are also imported.

"Some import of slaughter animals from Tibet takes place and during the war, a trade in bristles from Tibet (and Bhutan) arose. The turnover of the bristle trade is about Rs. 50,000 annually and the business is conducted by Tibetans and Chinese. Gold dust in small quantities from Milu in Tibet and silver from China are imported into Kalimpong by Tibetan and Chinese Muslims.

"In normal times exports to Tibet from India through Kalimpong were of the following commodities : Woollen and cotton piece-goods ; iron ; steel ; copper and brass ware and sheets ; stationery ; foodgrains ; sugar and gur ; dried fruits ; almonds and pistachios ; dyes and chemicals ; kerosene ; candles ; lanterns ; electric torches and batteries ; brick tea ; aluminium ware ; porcelain ware ; pearls ; coral beads ; precious stones ; cement ; leather goods ; cigarettes ; leaf tobacco and pharmaceutical goods.

"The balance of trade was much upset by the war and the exchange rate, normally one rupee to 7 Tibetan sangs, moved against the rupee so that one rupee became only equivalent to 2.4 sangs."¹

Following the Chinese occupation of Tibet in 1950-51, trade with Tibet diminished precipitately and has now come to a stand-still.

In 1960-61 the import of agricultural produce into the district far exceeded its export. Rice, wheat, pulses, tobacco, potato, sugar, molasses, mustard oil, salt, chillies, spices and eggs formed the bulk of such imports while cardamom, ginger, orange, seed potato and vegetables comprised the principal items of export.

Imports & Exports

¹ A. J. Dash—*Bengal District Gazetteers : Darjeeling*; Calcutta, 1907; pp. 167-68.

The following two tables furnish relevant information of the main items of the district's imports and exports during 1960-61.¹ (The district also imported during the same year eggs numbering approximately 20 lakhs worth Rs. 3 lakhs from Assam, Sikkim and Maldah).

A. IMPORT OF AGRICULTURAL PRODUCE INTO
DARJILING DISTRICT : 1960-61

Commodities	Source	Annual quantity (in lakhs of quintals)	Value (in lakhs of rupees)
Rice	Orissa West Dinajpur Birbhum and Burdwan	7.46	440.00
Wheat and wheat products	U.P., Bihar and Calcutta	5.60	300.00
Sugar	Calcutta	3.00	400.00
Pulses (whole and split)	U.P., Bihar and Calcutta	2.24	180.00
Potato	Assam, Bihar, U.P., Panjab, Nepal and Sikkim	.75	32.00
Mustard oil	Calcutta and Bihar	.75	180.00
Tobacco	Bihar and Calcutta	.037	15.00
Salt	Calcutta	.02	.42
Chillies	Bihar and Calcutta	.019	5.00
Spices	Calcutta	.004	.60
Molasses	Calcutta and Bihar	.004	.40
Total		19.884	1,553.42

¹ Source : District Agricultural Marketing Officer, Darjiling.

**B. EXPORT OF AGRICULTURAL PRODUCE
FROM DARJILING DISTRICT : 1960-61**

Commodities	Destination	Annual quantity (in lakhs of quintals)	Value (in lakhs of rupees)
Seed potato	Bihar, U.P., Orissa, Assam, M.P. and Panjab	.75	80.00
Orange	Calcutta, U.P. and Bihar	.75	7.50
Vegetables	Calcutta	.15	8.80
Cardamom	Calcutta, U.P. and Bihar	.04	13.20
Ginger	Calcutta	.02	1.50
Total		1.71	111.00

The following are the important trade centres dealing with the chief items of agricultural produce of the district. The assembling centres at Tista, Rambh and Panighata deal mainly with oranges and serve both as primary and secondary markets for this commodity. About 50 thousand quintals of Darjiling oranges along with another 28 thousand quintals of the Sikkim variety were exported to different places in 1966-67, of which nearly 65 per cent was sent to Calcutta. Seed potatoes are first taken by growers and village merchants to assembling marts like Bijanbari from where wholesalers purchase them for selling to their counterparts at the secondary markets at Darjiling, Ghum etc. The latter in turn export them to destinations in West Bengal or other States of India. The variety of seed potatoes coming from Nepal and Sikkim and passing through this district accounted for nearly 50 per cent of the total exports of the district amounting to 1.7 lakh quintals during 1966-67. For cardamom, Sukhiapokhri acts as the main assembling centre while the commodity is chiefly exported from secondary markets at Sonada and Kalimpong. The district's total production of 10 thousand quintals of cardamom together with about 8 thousand quintals imported from Nepal and Sikkim was exported during 1966-67, of which nearly 40 per cent went to different districts of West Bengal and 60 per cent to Delhi, U. P., Panjab and Maharashtra. The products dealt with at the different trade centres during 1966-67 along with their total value were as follows : Ghum and Jore Bungalow—seed potato, Rs. 40 lakhs ; Kalimpong—cardamom, ginger, orange, maize, Rs. 29 lakhs ; Tisia Bazar—orange, Rs. 6 lakhs ; Rambh—orange, Rs. 5 lakhs ; Panighata—orange, Rs. 45 thousands. The last three places are seasonal trade centres operating between October and February. Besides the above, the following wholesale markets dealing with important items of agricultural produce deserve special attention.¹

¹ Source : District Agricultural Marketing Officer, Darjiling.

Name of market	Commodity	Source of imports	Volume of imports (in quintals)	Destination of exports	Volume of exports (in quintals)
Siliguri*	Jute	—	—	Calcutta	1,25,000
	Orange	—	—	Calcutta, West Dinajpur, Maldah, Jalpaiguri, Patna, Purnea etc.	7,000
	Pineapple	—	—	Calcutta & Lucknow	3,000
	Mango	Maldah and different districts of Bihar	2,000	—	—
Bidhan*	Fruits & Vegetables	Maldah, Jalpaiguri etc.	1,000 300	— —	— —
Darjiling**	Maize & Seed-potato	Manipur, Nepal & Sikkim	1,000 70,000	— Bihar, U.P., Delhi, Panjab, Calcutta and different districts of West Bengal	— 1,00,000
	Ginger	—	—	Calcutta, Maldah, Jalpaiguri etc.	1,500
	Vegetables	Jalpaiguri & Purnea	5,000	Calcutta, Jalpaiguri, Maldah & West Dinajpur	15,000
Kharibari	Jute	—	—	Calcutta	20,000
Matigara	Jute Vegetables	— Purnea & West Dinajpur	18,000	Calcutta Jalpaiguri	12,000 1,000
Naksalbari	Jute	—	—	Calcutta	9,000
	Vegetables	Kissanganj (Purnea) & West Dinajpur	900	—	—

*The total turnover in these two markets is estimated at Rs. 680 lakhs annually.

The total turnover in this market is estimated at Rs. 58 lakhs annually.

The district produces quality tea, which has a good demand not only in other districts of West Bengal and in several States of North India, but also in countries like the U. K., West Germany, U. S. S. R., the Irish Republic and Iran.¹ In 1966, the district produced 1,75,920 quintals of tea.² Except for a very small quantity sold locally by a few gardens, the bulk of the produce is disposed of at Calcutta by auction through the respective agents of the tea planters. Sale through forward contract is also done by many gardens. Some gardens, however, corner a sizable proportion of the annual produce in expectation of better returns in future. Detailed information regarding the volume and value of the exports is, however, not available. The total value of tea exported in 1970-71 has been estimated roughly as Rs. 16 crores.

OTHER ITEMS OF EXPORT

Tea

Rich in its forest products, the district produced in 1964-65 13.69 lakh cft. of timber, 52.26 lakh cft. of fuel (excluding 4.77 lakh cft. given as free grants) and large quantities of bamboos, fodder, thatch, sand, stone, boulders, cane, honey and medicinal plants like aconite roots, *chirata* and *manjista*. The total value of all these products was Rs. 38.5 lakhs. Except for a small proportion locally consumed, the bulk of these commodities, including sleepers for the Railways, was sold generally through contractors.³

Forest products

During 1966-67, the district exported 199 quintals of quinine salts valued at Rs. 64.37 lakhs, 80 quintals of cinchona febrifuge powder worth Rs. 5.75 lakhs, 14.11 quintals of cinchona febrifuge tablets valued at Rs. 0.99 lakhs and 8 quintals of totaquina tablets worth Rs. 0.62 lakhs.⁴

Quinine & other
products

Besides the articles listed above, following are some of the important commodities imported into the district from outside : electrical goods from Calcutta ; fountain pens from Calcutta, Bombay and Aligarh ; wool from Delhi and Ludhiana ; groceries from Kanpur and Bihar ; stationery from Calcutta, Bombay and Delhi ; confectioneries from Calcutta, Bombay, Madras, Bangalore and Gwalior ; hardware and paints from Calcutta, Bombay, Delhi and Kanpur ; wine from Calcutta ; hurricane lanterns, umbrellas, soap and rubber tyres from Calcutta ; curios from Kashmir, Delhi and Nepal ; brassware from Moradabad ; ivory works from Jaipur ; shoes from Calcutta and Batanagar ; cloths from Calcutta, Ludhiana and Delhi ; utensils from Calcutta ; indigenous medicine from Nepal ; sewing machines from Calcutta, Bombay and Delhi ; watches and clocks from Calcutta and Bombay ; hosiery products from Ludhiana, Delhi, Madras and Howrah and fish from Katihar. Other items of import include sugar, *gur*, molasses, petrol, kerosene, coal, matches, salt, poultry, slaughter animals, motor cars and parts.

Other items of
import

1-2 Source : Tea Board, Calcutta.

3 Source : Forest Economist, Government of West Bengal, Calcutta.

4 Source : Director of Cinchona, West Bengal, Calcutta.

Retail marketing centres

The daily markets as also the periodical *hats* play an important part in the retail distribution of commodities, especially in the rural areas. A list of such retail marketing centres giving their names, years of origin, days of the week when they are held, important products transacted and average daily attendance will be found in Appendix A to this chapter. Most of them are controlled by the Darjiling Improvement Fund.

Fairs and melas

Fairs and *melas* are held throughout the district on religious or other ceremonial occasions. These meets provide opportunities for the marketing of goods in local demand. A list of such gatherings, with their locations, months of occurrence, occasion, duration and average attendance is given in Appendix B at the end of this chapter.

Co-operative marketing

There are 2 primary co-operative agricultural marketing societies in the district, namely, Kalimpong Large-sized Co-operative Agricultural Marketing Society Ltd. and Sukhiapokri Thana Large-sized Co-operative Agricultural Marketing Society Ltd. The latter till June 1968 did not start functioning while the former had, by the end of June 1967, a membership of 173 and a working capital of Rs. 3,059, the value of its sales in 1966-67 being Rs. 50,798 which carried it a profit of Rs. 35 only.

In the field of retail trade, the following co-operative marketing societies deserve special mention.

Name of society	Commodities handled
Rilling Agricultural Co-operative Marketing Society Ltd.	cream, butter, ghee, butter milk, baskets, cardamom, maize, millet, vegetables, seeds etc.
Pokhribong National Creamery Society Ltd.	ginger, potato, beans, peas, mustard oil, butter etc.
Barbatia Roshihat Agricultural Co-operative Marketing Society Ltd.	milk
Damsang Agricultural Co-operative Marketing Society Ltd.	potato, cardamom etc.
Rimbik Agricultural Co-operative Marketing Society Ltd.	potato
Gokh Agricultural Co-operative Marketing Society Ltd.	vegetables, paddy, pulses etc.

Labdah Khasmahal Agricultural Co-operative Marketing Society Ltd.	peas, seeds etc.
Sukhiapokhri Ex-service-men's Agricultural Co-operative Marketing Society Ltd.	potato, rice, wheat etc.
Chattaidhura Sankar Agricultural Co-operative Marketing Society Ltd.	potato
Dilaram Co-operative Milk Marketing Society Ltd.	milk
Sittong Namring Vegetable Growers' Co-operative Marketing Society Ltd.	vegetables
Toroyak Lower Mumring Agricultural Co-operative Marketing Society Ltd.	potato, vegetables, milk etc.
Kalimpong Tribal Co-operative Creamery Society Ltd.	milk and its products
Pallisri Multipurpose Co-operative Society Ltd.	vegetables
Batasi Tribal Cultivators' Co-operative Milk Marketing Society Ltd.	milk and ghee

In 1967, there were 253 fair price shops in the non-rationed areas of the district, the total annual offtake of rice and wheat from them being 1,15,118 and 1,59,337 quintals respectively.

Fair price shops

Most of the industries in the district, especially tea plantations, are affiliated to some Chamber of Commerce or other which have their headquarters in Calcutta.

Merchants' associations

A detailed list of labour organizations in the district has already been given in Chapter IV.

Labour organizations

**Organs for
dissemination of
trade news**

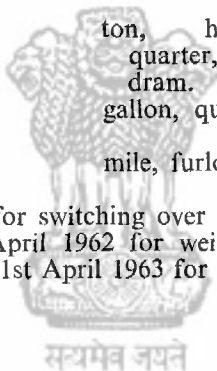
Dissemination of trade news etc. is mainly done by the commercial journals and newspapers published from Calcutta. The Calcutta station of the All India Radio also broadcasts market news regularly. Further, under the Price Dissemination Scheme, the prices of important agricultural commodities are displayed on boards set up at conspicuous places at important marketing centres like Sonada, Sukhiapokhri, Pokhribong, Bijanbari, Tukdah, Reshop Bazar, Pulbazar, Algarah, Pedong, Sombari Hat etc.

**Weights &
measures**

Prior to the introduction of the metric system, the following traditional units of weights and measures were in vogue in the district which are now being supplanted by the metric units.

Weight	<i>maund, seer, chhatak, mana</i> (approx. $\frac{1}{2}$ seer) for measuring rice or other agricultural produce.
Weight (avoirdupois)	ton, hundredweight (cwt.) quarter, stone, pound, ounce, dram.
Liquid measure (English)	gallon, quart, pint, gill.
Linear measure	mile, furlong, yard, foot, inch.

The statutory dates for switching over to the metric system in the district were 1st April 1962 for weights, 1st October 1962 for linear measure and 1st April 1963 for liquid measure.



BANKING, TRADE AND COMMERCE

APPENDIX A

LIST OF MARKETS IN DARJILING DISTRICT

<i>Name of Market</i>	<i>Year of origin</i>	<i>Days of week when held</i>	<i>Important products handled</i>	<i>Daily average attendance</i>
P.S. Darjiling				
Darjiling <i>Hat</i>	—	Saturday & Sunday	Vegetables, ginger, orange, butter, eggs	—
P.S. Gorubathan				
Jholang Bazar	1963	Sunday	cereals, vegetables	1,000
Sombari <i>Hat</i> (within Upper Fagu T.E.)	1905	Monday	cereals, vegetables, ginger, cardamom, orange, butter	5,000
Sombari <i>Hat</i> (within Kumai T.E.)	1949	„	cereals, vegetables, orange	1,500
Today Bazar	1963	Thursday	cereals, vegetables, milk products	500
P.S. Jore Bungalow				
Sonada Market	—	Sunday	potato, rice, cardamom, <i>chirata</i> , vegetables	—
P.S. Kalimpong				
Algarah <i>Hat</i>	—	Sunday	cardamom, ginger, potato, millets, maizes, vegetables, poultry	450
Gitbeong <i>Hat</i>	—	Wednesday	cardamom, butter, maize, millet, seed-potato	—
Gitdubling <i>Hat</i>	—	Wednesday	milk products, cardamom, rice, vegetables, potato, maize	—
Kagay <i>Hat</i>	—	Wednesday	cardamom, butter, maize, millet, potato	150
Kalimpong <i>Hat</i>	—	Wednesday & Saturday	rice, maize, vegetables, ginger	20,000
Lava <i>Hat</i>	—	Tuesday & Friday	milk products, cardamom	100
Nimbong Bazar	1907	Tuesday	butter, maize, millet, potato, milk products	500
Pedong <i>Hat</i>	—	Thursday	cardamom, butter, maize, millet, potato, stationery products	300
Samthar Bazar	1927	Monday	maize, millet, vegetables	200
Sukrabari <i>Hat</i> at Singi	1925	Friday	various agricultural products	350
P.S. Kharibari				
Adhikari <i>Hat</i>	1877	Tuesday & Sunday	rice, vegetables, cattle	3,000 4,000
Banderjhuli	1877	Sunday & Thursday	fish, vegetables, jewellery, clothes, agricultural implements, fish	200 300
Batasi <i>Hat</i>	—	Wednesday & Saturday	rice, vegetables, fish	—
Debiganj <i>Hat</i>	1962	Tuesday & Saturday	rice, vegetables, potato, clothes, stationery, articles	—
Kharibari <i>Hat</i>	1877	Monday & Friday	paddy, jute, rice, vegetables	—

<i>Name of market</i>	<i>Year of origin</i>	<i>Days of week when held</i>	<i>Important products handled</i>	<i>Daily average attendance</i>
P.S. Kurseong				
Chatakpur <i>Hat</i>	1960	Thursday & Saturday	rice, potato, vegetables	—
Chunbhati <i>Hat</i>	1920	Saturday	various agricultural products	—
Kurseong <i>Hat</i>	—	Sunday	vegetables, orange, ginger, onion	—
Kurseong Market	—	Daily	potato, ginger, orange, rice, vegetables, maize, poultry, milk products	—
Pankhabari <i>Hat</i>	—	Daily	potato, orange, radish, rice, ginger, maize	—
Tindharia <i>Hat</i>	—	Sunday	vegetables, orange, ginger, onion, rice	—
P.S. Mirik				
Mirik Market	—	Sunday	orange, maize, potato, ginger, pineapple, cardamom, vegetables	—
P.S. Naksalbari				
Bagdogra <i>Hat</i>	1877	Sunday & Thursday	grocery, vegetables, fish, jewellery, ornaments, agricultural implements	—
Fulbari <i>Hat</i>	—	Sunday	paddy, rice, vegetables, orange, fish	—
Gangaram <i>Hat</i>	—	Sunday	rice, vegetables, potato	—
Naksalbari <i>Hat</i>	1877	Tuesday & Saturday	paddy, rice, jute	5,000 6,000
New Chamta <i>Hat</i>	—	Monday	rice, vegetables, potato,	—
Panighata <i>Hat</i>	—	Sunday	orange, maize, potato, ginger, pineapple, cardamom, vegetables	—
P.S. Phansidewa				
Ambari <i>Hat</i>	1877	Tuesday & Saturday	vegetables, jewellery, clothes, agricultural implements, fish,	—
Bhalamanshi <i>Hat</i>	1963	"	rice, paddy, vegetables, jute, eggs, goats, hogs, stationery articles, earthenpots, clothes	2,500
Chat <i>Hat</i>	1960	"	—do—	1,500
Dhumni <i>Hat</i>	1963	Wednesday	rice, paddy, vegetables, eggs, fish, cloths, sweetmeats	200
Kamargach <i>Hat</i>	1960	"	—do—	500
Krishnapur <i>Hat</i>	1960	"	rice, vegetables, potato	—
Liusipukuri <i>Hat</i>	1962	Monday & Friday	rice, paddy, vegetables, jute, eggs, goats, hogs, stationery articles, earthen pots, clothes	1,500
Phansidewa <i>Hat</i>	1877	Sunday & Thursday	grocery, vegetables, fish, agricultural implements	1,000 1,500
Tarbandha <i>Hat</i>	—	Tuesday & Saturday	rice, vegetables, potato	—
P.S. Pulbazar				
Bijanbari <i>Hat</i>	—	Daily	rice, potato, cardamom, <i>chirata</i> , vegetables	—
Lodhoma <i>Hat</i>	—	Sunday	paddy, rice, vegetables, orange	—
Pulbazar <i>Hat</i>	—	Friday	rice, maize, poultry, vegetables	—
Rimbik <i>Hat</i>	—	Wednesday	rice, vegetables, potato, butter	—

<i>Name of market</i>	<i>Year of origin</i>	<i>Days of week when held</i>	<i>Important products handled</i>	<i>Daily average attendance</i>
P.S. Rangli Rangliot				
Rambi <i>Hat</i>	—	Sunday	maize, millet, orange	—
Rangli-Rangliot <i>Hat</i>	—	Sunday	maize, millet, vegetables	—
P.S. Siliguri				
Bagdogra <i>Hat</i>	—	Sunday & Thursday	rice, fish, vegetables	2,000
Matigara <i>Hat</i>	1877	Tuesday & Friday	—do—	2,500
Shalbari <i>Hat</i>	1963	Wednesday	rice, paddy, vegetables, cloths, pulses, onion, <i>gur</i>	7,000
Siliguri Assembling Centre	—	Daily	rice, paddy, jute, vegetables	8,000
Siliguri <i>Hat</i>	1966	Sunday & Wednesday	rice, vegetables, potato, <i>gur</i> , pulses	500
P.S. Sukhiapokhri				
Pokhribong <i>Hat</i>	—	Sunday	rice, potato, vegetables, butter	8,000
Sukhiapokhri <i>Hat</i>	—	Friday	vegetables, potato, poultry, cardamom, maize	10,000



APPENDIX B

LIST OF FAIRS & MELAS IN DARJILING DISTRICT

Location	Month of occurrence		Occasion	Dura tion (in days)	Average atten- dance
	English calendar	Bengali calendar			
P.S. Darjiling					
Singla	January	Magh	Local religious festi- val	3	5,000
P.S. Kalimpong					
Janata College, Kalimpong	March	Chaitra	Educational exhibi- tion	10	3,000
Kalimpong	January	Poush	Makar Samkranti	3	2,000
Pedong	February- March	Phalgun- Chaitra	Agricultural exhibi- tion	4	6,000
Tista Bazar	January	Poush	„	4	10,000
P.S. Kharibari					
Badalbhitia	October- November	Kartick	Kalipuja	2	1,000
Badora	Septem- ber-Octo- ber	Asvin	Vijaya Dasami	2	1,000
Gandagol	March	Chaitra	Sathia-Tukuria puja	3	1,000
Khaniapukur	October- November	Kartick	Kalipuja	2	1,000
Kharibari	March		Exhibition	2	150
Khopalasi	October- November	Kartick	Kalipuja	2	1,000
Maynaguri	February	Phalgun	Ganga Barun Adhi- kari Thakur Mela	2	1,000
New Adhikari Hat	October- November	Kartick	Kalipuja	2	1,000
Sukaru				2	1,000
Warrish	February- March	Phalgun	Sivaratri	3	1,000
P.S. Kurseong					
Kurseong	March- April	Chaitra- Baisakh	Agricultural and In- dustrial exhibition	3	5,000
P.S. Mirik					
Mirik	January- February	Poush- Magh	Industrial exhibition	4	7,000
P.S. Phansidewa					
Atharakhai	February- March	Phalgun	Sivaratri	4	2,000
Tarbandha	February- March	Phalgun	Sivaratri	2	150

APPENDIX B- *Conclu.*

List of Fairs & Melas in Darjeeling District

Location	Month of occurrence		Occasion	Duration (in days)	Average attendance
	English calendar	Bengali calendar			
P.S. Pulbazar					
Bijanbari	January	<i>Poush</i>	<i>Makar Samkranti</i>	4	2,000
Lodhoma	"	"	"	3	4,000
P.S. Rangli Rangliot					
Takdah	March	<i>Chaitra</i>	Local religious festival	2	3,000
P.S. Siliguri					
Bagdogra	September	<i>Asvin</i>	<i>Durgapuja</i>	2	200
Matigara	-October February- March	<i>Phalgun</i>	<i>Sivaratri</i>	3	1,000
P.S. Sukhiapokhri					
Sukhiapokhri	March	<i>Chaitra</i>	Local religious festival	3	5,000



CHAPTER—VI

COMMUNICATIONS

OLD TIME TRADE ROUTES AND HIGH- WAYS AND MODES OF CONVEYANCE

Before 1835, means of communication for Darjiling District were very rudimentary. A few narrow rough tracks through forests and occasional cane bridges over torrents were all that existed. Grant's memorandum of 1830 mentioned only two routes then existing northward from the plains into Sikkim. One was by the 'Nagree' pass and the other by the 'Sabbook Golah'. A third route by the Mahananda was mentioned as having been deserted and overgrown with jungle.

The pioneers who came to poen up Darjiling after it had been ceded in 1835 were confronted with an arduous journey from Calcutta before they reached the hills. *A Guide to Darjiling* published in 1838 mentioned 98 hours as the time the journey took from Calcutta by *dawk*.

The discomfort and expense of the arduous journey were graphically described by Joseph Hooker who, in 1848, had to travel from Karagola Ghat on the Ganges to the foothills. Hooker wrote : "I awoke at 4 A.M., and found my palkee on the ground, and the bearers coolly smoking their hookahs under a tree (it was raining hard) : they had carried me the length of their stage, twelve miles, and there were no others to take me on. I had paid twenty-four pounds for my *dawk*, from Caragola to the hills, to which I had been obliged to add a handsome *douceur* ; so I lost all patience. After waiting and entreating during several hours, I found the head-man of a neighbouring village, and by a further disbursement, induced six out of twelve bearers to carry the empty palkee, whilst I should walk to the next stage, or till we should meet some others. They agreed, and cutting the thick and spongy sheaths of the banana, used them for shoulder-pads : they also wrapped them round the palkee-poles, to ease their aching clavicles."¹ Hooker describes elsewhere his first journey from Pankhabari to Darjiling in the following words : "On the following morning my baggage arrived, and, leaving my palkee, I mounted a pony kindly sent for me by Mr. Hodgson, and commenced a very steep ascent of about 3,000 feet, winding along the face of a steep, richly-wooded valley. The road zigzags extraordinarily in and out of the jungle. ...Not only are the roadsides rich in plants, but native paths, cutting off all the zigzags, run in straight lines up the steepest hill-faces. ..."²

The first step to introduce modern communication in the district was taken in January 1838 when the trace of the Calcutta Road to the east of the hill on which Jalapahar Cantonment stands now

1 J. D. Hooker—*Himalayan Journals*. London, 1854; p. 68.

2 *ibid.* pp. 73-74.

was completed by Lt.-Gen. Lloyd. In 1839, Lt. Napier (subsequently Lord Napier of Magdala) of the Royal Engineers was deputed to prepare a lay-out of Darjiling town and to construct a road from Siliguri to Darjiling.¹ This project was carried out between 1839 and 1842 at an expenditure of Rs. 8,00,000 and the road, now known as the Old Military Road, can still be seen winding its way from Pankhabari to Kurseong and then on to Dow Hill, Senchal and Ghum, having no less than 300 bridges and culverts to cross. This road was not practicable for wheeled traffic and the development of Darjiling and the heavy cost of transporting military stores led to the construction of a cart road to Darjiling. Work was begun in 1860; the section from Kurseong to Darjiling was opened to traffic in 1864 and the whole road completed in 1869.

By the Tumlong treaty of 1861, trade monopolies, restrictions on the movement of travellers, and duties on goods passing between Sikkim and British territory were abolished. Moreover, the British Government was authorized to construct a road through Sikkim and the Sikkim Government agreed to protect the working parties, to maintain the road, and to erect and maintain suitable rest houses.² Since the Old Military Road was found incapable of meeting the expanding requirements of the district, the Siliguri-Darjiling Cart Road, averaging 25 feet in width and costing about £6,000 per mile, had to be constructed. It was a blessing in more senses than one; it is along this highway mainly that the Darjiling Himalayan Railway route was subsequently laid out.

In 1849, Hooker had travelled along some of the paths which were subsequently developed for strategic reasons. His description of them reveals the condition in which they were maintained. In his second expedition, Hooker's route³ lay along Tendong mountain (which in Darjiling was known as Mount Ararat) through the villages of Mikk (3,900'), Namchi (5,600') and Temi (4,770') on the Tista valley. From Temi the road descended to the Tista, the course of which it afterwards followed. After 7 days' journey from Darjiling, Hooker came to Bhomsong on the Tista gorge from where there was a steep and dangerous ascent to Lathiang (4,800') and then along the east flank of Maniom mountain to Gorh (4,100') and across a swinging cane bridge over the Tista at Lingo (2,000'). The road thereafter passed over a steep spur (5,500') and descended to the village of Singtam where the Tista is known as Lachen-Lachoong from its origin from two rivers of these names.

1 E. C. Dozey—*Darjeeling : Past and Present* (2nd Edn.); Calcutta, 1922; p. 3.

2 H. H. Risley and others—*The Gazetteer of Sikkim*, p. iv.

3 J. D. Hooker—*op. cit.* pp. 287-463.

The district was linked with the southern plains by a modern communication system. In 1860 the East Indian Railway was extended up to Sahibganj, 21½ miles from Howrah. From this point to Karagola Ghat, on the opposite bank of the river, a five-hour river crossing had to be accomplished before proceeding by bullock cart to Dingra Ghat and from there by palki, pony, carriage or cart to the foot of the hills past Purnea, Kishanganj and Titalya and thereafter a 56-mile tedious journey along the Pankhabari-Darjiling Road. The Cart Road from Siliguri to Darjiling was completed in 1869. On 28 August 1877 the Northern Bengal State Railway was opened to traffic between Atrai (a few miles to the north-east of Sarah Ghat) and Jalpaiguri. In 1881 the Darjiling Himalayan Railway started carrying passengers for Darjiling. Up to 1915, the railway journey from Calcutta to Siliguri was broken at the Ganges where the broad gauge line ended and the river crossing was performed in a ferry steamer to go on to the metre gauge system north of the river. The Ganges was bridged in 1915 and the broad gauge system speedily extended northward so that the traveller could reach Siliguri after a through train journey of 9 hours over the Sarah Bridge across the Ganges and be in Darjiling within 13 or 14 hours of his leaving Calcutta.

The Darjiling
' Himalayan Rail-
way

In 1878 "a contract was placed with Messrs. Tom Mitchell & Rumsey of Calcutta for the construction of a tramway to Darjiling. At the close of the year following, the E.I. Railway workshops at Jamalpur undertook the building of engines for this line, the first being named 'Tiny'. At this time the tramline worked up a zigzag from Gayabari to Giddapahar (between the Mahanadi and Kurseong stations, and did not worm 5 miles round the spur as at present), and as the gradient was severe it followed that only very light vehicles were run on the line. The 'Tiny' was first brought into use on the occasion of the visit of Lord Lytton, the Viceroy, in March 1880, and proved incapable of dragging the extra baggage which such a visit entailed, and so an army of coolies was immediately pressed into service ..to drag its precious freight to the 18th mile terminus. ..Shortly after this visit, the steam tramway was extended to Tung, from which station the traveller rode in a tonga to Darjiling until July 4th, 1881, when the line was pushed on to the terminus and its designation changed to that of 'The Darjiling Himalayan Railway.'¹

Later on the toy-train with its two-feet gauge and its miniature locomotives, built by Messrs. Sharpe, Stewart & Co. of Glasgow, were capable of drawing for short distances a 50-ton load up a gradient of 1 in every 15 feet. Some of these engines are still there. At the beginning of this century, the speed of the trains was limited to 10 miles an hour on the hill section as a safeguard

¹ E. C. Dozey—*op. cit.*, pp. 9-10.

against accidents, especially on the down journey. The line cost about £3,500 (or Rs. 52,000 at the then prevalent rate of exchange) per mile. The Cart Road along which it was constructed, was handed over by the Public Works Department to the Railway authorities to provide for its prompt and adequate repairs as well as to ensure the running of the traffic even during the rains. At least 550 small bridges and culverts had to be constructed to lay the line.

The gradient from Siliguri to Sukna is 1 in 281 feet and for the distance between Sukna and Ghum it is 1 in every 30 feet, while that between Ghum and Darjiling, which when 'compensated for curvature,' works out to as much as 1 in every 16. In accordance with a scheme drawn up in 1919, the loop at Batasia near Darjiling reduced the gradient of this last stretch to 1 in every 22.5 feet.

The following description of the track and its surroundings is based on that given by Dozey.¹ The line from Siliguri (392 feet) wended its way north-east through the Terai, emergad at Sivok (500 feet) to worm its way 100 feet above the level of the Tista river until it reached Kalimpong Road Station, 2 miles from the Tista Bridge. After a run of 5 minutes, the Mahanadi bridge (700 feet) was reached. At the third mile was the Panchamai Junction, one of the termini of Kishanganj line, 66 miles in length. From this station to Sukna the line on either side is fringed with magnificent stately trees, much of which is now under plough and some under the afforestation programme. Sukna (the dry spot), at the $7\frac{1}{4}$ th mile, is the point from where the ascent is abrupt. From here onwards on one side of the line, ferns, stag-moss etc., may be gathered by stretching out the hand while on the other are deep ravines which at some spots are very precipitous. The first loop occurs at a distance of $11\frac{1}{2}$ miles while at the 12th-mile stands Rangtong station nestling in a curve of the hill. The second loop is a little distance beyond the 14th mile, a spot which used to be known as a sanctuary for panthers. At the $15\frac{1}{2}$ mile is the third loop, after which the track passes through Chunabhati before the first reverse is zigzagged a little way up the 17th mile. The line then begins to climb to Tindharia where the railway workshops are located. Further up this station is the second reverse and the fourth loop with a radius of only 58 feet which give a good idea of the ingenuity displayed in their construction. The third reverse beyond the 23rd mile is passed before Gayabari is reached. A little ahead of Gayabari is the fourth and the last reverse, then the Pagla Jhora, or the mad torrent, which in the rains is a very pretty cascade but a bane to the railway for it cost fully a lakh of rupees to revet it. The Pagla Jhora in July 1880, washed away nearly 200 feet of the road and line. Indeed, so great was the destruction that it was seriously

1 E. C. Dozey—*op. cit.*, pp. 15-23.

contemplated to deflect the line and to lay it round the hill at this spot. The next station is Mahanadi which takes its name from the river it overlooks and is 27 miles from Siliguri. From here up to Kurseong excellent views of the plains are obtained, as also of the three rivers, the Balasan, the Mahanadi and the Tista, which bathed in sunlight look like three narrow, silvery ribbons. The Sukna road appears like a long straight line at the end of which tiny, white dots indicate the houses in Siliguri.

The next halt is at Kurseong where the line passes through the crowded bazar of this subdivisional town which is also the meeting place of the old Pankhabari Road and the Hill Cart Road. Sixteen miles to the south-west is Mirik (5,000 feet). The next station is Tung which takes its name from the Toon trees that thrive here. A little beyond the 41st mile, the bazar and station of Sonada (the abode of bears) is reached which is just 10 miles south of Darjiling. Sonada and its environs are called 'Pacheem' by the hill people; some use the term solely to denote Hope Town, which is 2 miles below and to the south-west of the station. From Sonada to Ghum the line works in and out through heavy forest, chiefly oak, which clothes the hillsides. From Ghum (the gable-shaped village) several roads radiate in different directions. The road to the east, known as the Pashok Road, ends at Tista Bridge on its way to Kalimpong. A side-road branching off at the 6th mile along the Pashok Road takes one to Takdah. To the south-east lies the reservoirs at Senchal which supply Darjiling with water while beyond is Tiger Hill (8,515 feet). To the west, and only $3\frac{1}{2}$ miles away, is the famous Ghum Rock, 95 feet high, which stands at a heavy list over the road. Its summit is flat, and on it many a picnic party is held. A good view of the plains as well as of the Nepal frontier may be had from its top. Another important road not mentioned by Dozey running west from Ghum passes through Sukhiapokhri to Simana Basti on the Nepal border which carries large quantities of merchandise to and from that country. To the immediate left of the station is a big Buddhist monastery, while above and facing Ghum are the cantonments of Katapahar and Jalāpahar. From here the railway line descends, and after passing the fifth and last loop, Darjiling (6,812 feet) which is 4 miles away, is reached.

Another narrow-gauge (2 feet) track, which had to be abandoned due to severe landslides, ran from Siliguri to Gielkhola on the Tista Valley Road. The line took off from Siliguri and ran north-east along the Bagrakot Road for a distance of about 13 miles to Sivok station. From Sivok (the gate of the winds) it followed the right bank of the Tista along the Old Cart Road (aligned shortly after the district was annexed in 1850) which, after the unprecedented flood of 1899, was abandoned for the new one constructed at a much higher level from the bed of the Tista. This road, which is fully 300 feet above the level of the

Tista, was completed in 1908-09 at a cost of Rs. 5,00,000. At the fifth mile from Sivok is Kalijhora and 5 miles beyond lies the Kalimpong Road Station, which at one time used to be its terminus. From here the old Tista Bridge was only a couple of miles further north.¹

The Tista Valley Road was completed shortly after 1850. It connects Siliguri with Rangpo, a distance of $46\frac{1}{2}$ miles. In O'Malley's time (1907) the section from Sivok to Tista Bridge ($17\frac{1}{2}$ miles) was maintained by the Public Works Department and that from Tista Bridge to Rangpo by the Sikkim State. The Old Military Road (or the Pankhabari Road) was, however, constructed earlier in 1842 and was the first modern, long-distance road in the district under British rule. Then in 1869 was built one of the best mountain roads in India, the Hill Cart Road, which called for a prodigious amount of ingenuity, skill, labour and expense. Sickness broke out among coolies in the lower valleys, and in the Terai, where the dense virgin forest had to be cleared, the labourers could only be induced to stay by the energy and example of the Engineer-in-charge, who pitched his tent on the edge of the forest and encouraged the workmen by his presence and determination. In the hills, the ground was rocky and precipitous and the amount of blasting was far greater than was anticipated. This magnificent mountain road ascends with an easy gradient from the foot of the hills to Darjiling, a distance of nearly 49 miles. It was, in O'Malley's time (1907), looked after by the Public Works Department but its maintenance and annual repairs were thereafter entrusted to the Darjiling Himalayan Railway, which was remunerated for the work by a commission of 15 per cent on the amount expended.

The Tista Bridge served as an important junction where the roads to Darjiling and Kalimpong met with the Tista Valley Road. The original suspension bridge was constructed across the Tista shortly after 1865. Being over 300 feet in length it swayed under the tread of passengers and gusty winds. The Anderson Bridge, which was destroyed by the severe Tista floods in 1968, was a reinforced concrete bridge constructed at a cost of Rs. 3,69,000 in 1933-34. It had replaced the older suspension bridge to carry a roadway 18 feet wide. It was Mr. D. J. Stevenson-Moore, who after visiting Kalimpong in 1914, pleaded for the development of Kalimpong as a subdivisional headquarters by bridging the Tista and connecting Kalimpong with Tista Bridge by a cart road which is now known as the Rishi Road, about 20 miles long. The original road ascended a little over 3,000 feet in 8 miles and the ruling gradient (1 in 15) was so severe that carts were unable to take loads heavier than 8 maunds up it. There was also another track used by pedestrians which was 4 miles shorter and proper

1 *ibid.*, pp. 255-56.

tionately steeper. This road continued to Pedong and across Sikkim and over the Jelep La pass to Phari Dzong and Lha e. It was an important trade route.

Another road, some 11 miles long, on which Hooker travelled and called it 'excellent' was that from Darjiling to the cane bridge over the Great Rangit river, about 6,000 feet below Darjiling town. About the cane bridge, Hooker wrote : "I saw, for the first time one of the most characteristic of Himalayan objects of art, *cane bridge*. ...A tree formed one pier for the canes ; that on the opposite bank was constructed of strong piles, propped with large stones, and between them swang the bridge, about eighty yards long, ever rocking over the torrent (forty feet below). The lightness and extreme simplicity of its structure were remarkable. Two parallel canes, on the same horizontal plane, were stretched across the stream; from them others hung in loops, and along the loops were laid one or two bamboo stems for flooring ; cross pieces below this flooring, hung from the two upper canes, which they thus served to keep apart. The traveller grasps one of the canes in either hand, and walks along the loose bamboos laid on the swinging loops ; the motion is great, and the rattling of the loose dry bamboos is neither a musical sound nor one calculated to inspire confidence ; the whole structure seeming as if about to break down. With shoes it is not easy to walk ; and even with bare feet it is often difficult, there being frequently but one bamboo, which, if the fastening is loose, tilts up, leaving the pedestrian suspended over the torrent by the slender canes. When properly and strongly made, with good fastenings, and floor of bamboos laid *transversely*, these bridges are easy to cross. The canes are procured from a species of *Calamus*, they are as thick as the finger, and twenty or thirty yards long, knotted together and the other pieces are fastened to them by strips of the same plant. A Lepcha, carrying one hundred and forty pounds on his back, crosses without hesitation, slowly but steadily, and with perfect confidence."¹

Hooker did not dare to use this cane bridge and used a makeshift ferry boat instead. "The boat was a triangular raft of bamboo stems, with a stage on the top, and it was secured on opposite side of the stream, having a cane reaching across to that on which we were. A stout Lepcha leapt into the boiling flood and boldly swam across, holding on by the cane, without which he would have been carried away. He unfastened the raft, and we drew it over by the cane, and, seated on the stage up to our knees in water, we were pulled across, the raft bobbling up and down over the rippling stream."²

1 J. D. Hooker—*op. cit.*, pp. 101-03.

2 *loc. cit.*

On his journey from Darjiling to Tanglu, Hooker travelled along a bridle path, which was typical of many such routes in the district. Such tracks, Hooker wrote, ran along ridges, wherever these were to be found, through deep humid forests and were very steep and narrow at the top.

The traditional modes of conveyance in the Darjiling hills are the hardy porters and the sure-footed mules. In the autumn of 1848 Hooker trekked the Darjiling and Nepal Himalayas on foot, and everything was carried on men's back. For these excursions, which occupied three months, Hooker collected a party of fifty-six men, mostly run-away Bhutanese domiciled in Darjiling. Elsewhere Hooker wrote: "Having arranged the collections (amounting to eighty loads) made during 1848, they were conveyed by coolies to the foot of the hills, where carts were provided to carry them five days' journey to the Mahanadi river, which flows into the Ganges, whence they were transported by water to Calcutta.¹ In the foothills and the plains, Hooker travelled on ponies and elephants and heartily disliked the latter. "A more uncomfortable mode of conveyance was surely never adopted; the camel's pace is more fatiguing, but that of the elephant is extremely trying after a few miles, and is so injurious to the human frame that the Mahouts (drivers) never reach an advanced age, and often succumb young to spine disease, brought on by the incessant motion of the vertebral column."²

Old time modes
of conveyances

In O'Malley's time (1907) the modes of conveyance had improved but little. He wrote: "Strong bullock carts equal to very rough work ply along the few roads where the gradient is not too severe for wheeled traffic, but these roads are few in number, and the majority are paths too narrow and steep for any carts. Pack-ponies or human carriers are consequently most generally used for transport. The coolies are capable of great feats of endurance. It is not uncommon for a tea-garden cooly to carry a tea chest weighing 110 to 130 lbs. for a distance of 5 or 6 miles up an ascent of 2,500 to 3,500 feet; and others again, who bring in merchandise from the frontier States, perform long journeys of many days' duration, carrying heavy loads, 150 to 200 lbs. in weight, along high ridges, up and down steep mountains, and through hot valleys varying many thousand feet in elevation. In Darjiling itself the commonest conveyances for those who do not ride are the luxurious rickshaw and the hill dandy. The latter is a long coffin-like reclining chair with one end resting on the shoulder of a bearer, and the other slung across a pole (*dandi*) which rests on the shoulders of two men behind. For long journeys four men are necessary, and then the dandy is supported on poles both before and behind."³

¹ *Ibid.*, pp. 262-63.

² *Ibid.*, p. 282.

³ L.S.S.O' Malley—*op. cit.*, p. 136.

It was only after the First World War that the management of the Grand Hotel, Calcutta, introduced a passenger-automobile service between Siliguri and Darjiling. It cut short the train journey by about $3\frac{1}{2}$ hours. The course of trade and its volume along the hill roads have undergone a change since the introduction of motor transport.

Since the subject of rail road competition has been discussed in a later section of this chapter, it may only be said here that due to the enormous maintenance cost of the hill railway as also for the 'break of gauge' factor, road transport has been found to be more advantageous than rail haulage.

Road administration in the past

In O'Malley's time (1907), the more important roads in the district were under the Public Works Department ; they aggregated 336 miles, of which 173 miles were metalled and 163 miles unmetalled and were maintained at an annual cost of Rs. $1\frac{1}{2}$ lakhs. Besides these, 49 district roads with a total length of 297 miles and 5 village roads running for 10 miles were maintained by the District Road Committee at an average annual expenditure of Rs. 48.5 per mile, from the District Road Fund derived from road cess. There were two Branch Road Funds subordinate to the District Road Fund, each administered by committees, which received allotments of money for the roads maintained by them. That at Kurseong was responsible for the roads in the lower hills and the Terai Road Fund Committee for those within the Siliguri police station while the District Road Cess Committee was in charge of the roads in the hills east of the Tista.¹ The latter committee had no engineering staff under it, and in the hills east of the Tista, the construction and repair of all roads were vested with the tea planters—an arrangement which was not an unmixed blessing. It made for efficiency and economy, as the planters, who were vitally interested in having good roads in the neighbourhood of their tea gardens, were careful to see that they were kept in proper order. But areas not in the vicinity of tea gardens remained gravely neglected. In the Terai, where the number of tea gardens is fewer, an overseer used to be employed, but there too the repairs of most of the roads were executed by managers of tea gardens, though the work was also occasionally done by contract. Both in the hills and in the Terai, the more important bridges under the District Road Cess Committee were repaired by the Public Works Department from the Road Fund while around the tea gardens, the roads and bridges were kept up by the tea estates concerned.²

1 *ibid.* p. 139.

2 *loc. cit.*

In the Kalimpong Khasmahal estates east of the Tista all roads outside forests and tea gardens were maintained by the free labour of ryots. By customary obligation each adult member of a cultivator's household had to supply two days' labour, without remuneration, on the roads in or near the block in which he had his land and the headman of the block was responsible for keeping these roads in proper shape. Altogether 158 miles of roads were thus maintained through the free labour of villagers and the system worked well.

The expansion of highway communication is the most significant development in the district since the First World War. At that time there were only 533 miles of roads in the district. Of these only 37 miles were under municipalities, 51 miles constituting the Hill Cart Road had been handed over to the D. H. Railway, while the remainder was under the charge of the P. W. D. and the District Board which allocated funds to the managers of tea estates for the upkeep of roads leading to and through their plantations

O'Malley wrote in 1907 : "The construction and maintenance of roads in the district are matters of great difficulty ; in the interior, owing to the mountainous nature of the country, its heavy rainfall and its liability to landslips ; and in the Tarai, owing to the great floods which swell the streams and rivers debouching from the mountains. In the hills the soil is a micaceous shale easily eroded and liable to landslips, especially where the forest covering has been destroyed and the rain ploughs through the exposed surface. The cost of road construction is extremely high, owing to the physical features of the country. The roads have to be driven up hill and down dale, often along the edge of steep precipices, where the hill-side must be dug away, the rocks blasted, and the hill streams controlled. Expensive stone walls are consequently necessary, breast walls being built above the road to prevent the hill-side falling upon it, and revetments being built below to prevent it sinking. The rock-strewn streams which drain the mountain slopes are another source of danger. Trickling runlets in the hot weather, they become swollen torrents in the rains ; and training walls have to be built far up the mountain to prevent them washing away the road. The effects of excessive rainfall have also to be guarded against, in order to prevent the roads being scoured out. For this reason, they are generally built with an inward slope and with a drain against the hill-side, as otherwise the steep inclines would make them mere water-courses ; and at intervals there are small ridges of stone to divert the water into the drains. In some cases, the roads have been built with an outward slope, but in the opinion of many engineers this is a mistake, as the water rushing over it is apt to scour and undermine the hill-side below the road.

"There are few roads with a gradient easy enough to allow of cart traffic, and the majority are built with a gradient which only admits of the passage of ponies and pedestrians : in some places, in fact, the gradient is so steep that ordinary metalling will not rest, and the roads have to be paved with rough stone slabs. These, though troublesome enough to walk upon, are the only means of keeping the road passable during the monsoon months, and of preventing them being scoured out by heavy rain. The roads have more often than not to be laid out in sharp zig-zags or curved round the spurs of the mountains and into the deep ravines and gorges ; and the result is that their length is out of all proportion to the actual distance as the crow flies, being often twice and sometimes thrice as great."¹

In spite of the heavy expense of construction, maintenance and bridging, road communications in Darjiling have always been recognized as very important both by the Government and the army which explains why various authorities control the roads of the district. The Central Public Works Department controls portions of certain major roads leading to neighbouring hill States, the rest of these roads and some other important thoroughfares being maintained by the Public Works Department of the State Government. The Zilla Parishad is responsible for the subsidiary lines of communication while the Forest Department looks after certain forest roads. With the introduction of automobiles on the roads of the district after 1918, a fresh impetus was given to the building of modern thoroughfares in this area. *The Final Report on the Survey and Settlement Operations in the Darjiling Terai (1919-25)* made the following observations on the roads of the district : "The Cart Road to Darjiling, the Siliguri-Naksalbari Road, the Matigara-Kurseong Road, the Naksalbari-Gayabari Road, the Siliguri-Sivok Road and the Ganges-Darjiling Road are the best kept metalled roads of the Terai. They are all maintained by the Public Works Department except the one last mentioned which is maintained by the District Board.... Of the kutchha roads, the one from Matigara to Phansidewa having probably the largest traffic needs immediate improvement. The metalling of the Baghdogra-Thakurgang road is a chronic necessity. There are numerous branch and cross roads connecting the important feeder roads. The aim of the District Board should be the gradual metalling of all the branch and feeder roads. A list of the important roads (in the Darjiling Terai) is given below. (The lengths of the roads in metric measure are given within brackets).

¹ L.S.S.O' Malley—*op. cit.*, pp. 133-34.

ROADS MAINTAINED BY THE PUBLIC WORKS DEPARTMENT

From	To	Length
Siliguri	Sivok	12 miles (19.3 km.)
Sukna	Adalpur	3 miles 321 ft. (4.9 km.)
Matigara	Darjiling Hill Cart Road	2 miles 355 ft. (3.3 km.)
Station-yard Road, Siliguri		540 ft. (162 metres)
Siliguri Bazar Road		1,464 ft. (439.2 metres)
Station Feeder Road, Siliguri		4,000 ft. (1,200 metres)
New Kutchery Road, Siliguri		1,792 ft. (537.6 metres)
Matigara	Naksalbari	11 miles 3,090 ft. (18.6 km.)
Ganges-Darjiling Road (portion)		2 miles 331 ft. (3.3 km.)
Tirihaua	Naksalbari	8 miles 2,710 ft. (13.7 km.)
Tirihana	Baghdogra	5 miles 4,412 ft. (9.4 km.)
Panighatta	Kadma	3 miles 720 ft. (5.0 km.)
Portion of road from Matigara to Kurseong via Pankhabari		13 miles 2,640 ft. (21.7 km.)
Panighata	Dubhijhora	2 miles 2,325 ft. (3.9 km.)

ROADS MAINTAINED BY THE DISTRICT BOARD, DARJILING

Road no.	From	To	Length
32	Naksalbari	Debiganj via Kharibari	8 14 miles 6 (22.4 km.)
33	Kharail	Hill Cart Road	2 miles 4 fur. (4.0 km.)
34A	Garidhura	Junction of Baghdogra- Tirihana Road with Naksalbari Tirihana Road	2 miles 6 fur. 87 yds. (4.5 km.)
35	Old Siliguri	Rangapani	3 miles 3 fur. (5.4 km.)
36	Rangapani	Goaltuli	5 miles (8.1 km.)
37	Matigara	Salbari	2 miles 1 fur. (3.4 km.)
38	Junction with Road No. 32 (Kharibari)	Adhikari	2 miles 4 fur. (4.0 km.)
39	Hill Cart Road	Shahpur T.E.	2 miles (3.2 km.)
39A	Madnaguri jote (Hill Cart Road)	Bhaismari	6 miles 1 fur. (9.9 km.)

Road no.	From	To	Length
40	Dumriguri Inspection Bungalow	Phansidewa via Baghdogra hat and Harlia Bridge	8 miles 5 fur. (13.9 km.)
41	Baghdogra	Ghugujhora	7 miles (11.3 km.)
42	Tepu	Junction with Road No. 28	2 miles (3.2 km.)
43	Manjwa	Turibari	3 miles (4.8 km.)
44	Khaprail	Tirihana	4 miles (6.4 km.)
44A	Patanbari	Siliguri-Kurseong Road (7th mile)	4 fur. (804.6 metres)
45	Hansquar	Ghugujhora	3 miles (4.8 km.)
46	Hansquar	Chaupukhuria	4 miles (6.4 km.)
47A	Junction with Road No. 31	Kharibari up to Road No. 29 in Bandarjhuli	4 miles 6 fur. 134 yds. (7.8 km.)
48	Matigara-Siliguri road near Panchanai Bridge	Champasari forest depot via Bhaismari	6 miles (9.7 km.)
49	Atal	Cambrian	6 miles (9.7 km.)
50	Matigara-Naksalbari Road	Baghdogra-Atal Road	1 mile 2 fur. 112 yds. (2.1 km.)
51	Tirihana	Panighata via Old Terai	2 miles (3.2 km.)
52	Road No. 41	Road No. 47 via Mudi Bazar Chenga Bridge and Pahargumia	4 miles 2 fur. 14 yds. (6.9 km.)
52A	Panighata Bridge	Longview	2 miles 100 yds. (3.3 km.)
47	Atal	Junction with Road No. 31 (Nagrijote), Cross Roads, bye-roads and ordinary Village roads (Terai)	6 miles 4 fur. 30 yds. (10.5 km.)
1	Hill Cart Road	Damragram	2 miles (3.2 km.)
2	Subtiguri	Garidhura via Tarabari	2 miles (3.2 km.)
3	Old Siliguri	Matigara Hat	2 miles 1 fur. (3.4 km.)
4	Mudibazar	Baghdogra Thakurganj	(Merged with road No. 52.)

LIST OF ROADS UNDER THE SILIGURI LOCAL BOARD

Road no.	From	To	Length
27	Matigara (Matigara-Naksalbari Road)	Phansidewa	8 miles 4 fur. 3 yds. (13.7 km.)
28	Baghdogra	Atal	4 miles 5 fur. 83 yds. (7.5 km.)
29	Kharibari	Phansidewa	12 miles 4 fur. (20.1 km.)
30	Garidhura	Panighata	3 |
30A	Panighata	Mechi	5 | 8 miles (12.9 km.)
31	Naksalbari	Ambari (Thakurganj)	8 miles 4 fur. (13.7 km.)

The report goes on to give a detailed account of the construction and maintenance costs of roads under various managements and states that "the annual recurring expenditure of the P. W. Department for the maintenance and upkeep of the Terai roads amounts to about a lakh of rupees."¹ By this time (1927), bridging techniques in the hills had also changed considerably. Suspension bridges were commonly using steel wire ropes instead of bamboos and the cantilever log bridges were giving place to steel girders and reinforced concrete to sustain heavy traffic.

In Darjiling, because of its strategic location, highways were never regarded as only of local importance. Even after 1854, when the authority for construction of roads was transferred from the Military Board to the Civil Department of Public Works, the Government was, as it still is, very much concerned with the strategic importance of the arterial and border roads. But their maintenance was so expensive that the Provincial Government had to place most of the road mileage under the care of local bodies and the Forest Department, reserving direct responsibility for only a small fraction of it. In 1928, the Road Development Committee under the Chairmanship of M. R. Jayakar called for a change in the whole road policy of the Government. The Government of India responded immediately by setting up in 1929 a Central Road Fund with the proceeds of a surcharge on petrol in order to enable them to make annual block grants out of this Fund to the Provinces for subsidizing provincial work on roads.

Jayakar Committee

The Central Road Fund

But as Bengal had no development plan worth the name at that time, A. J. King was appointed Special Officer for road development in 1934. He found that apart from minor improvements in respect of surfaces, easing of curves and gradients etc., there was no question of changing the alignments of the major roads or substituting them with entirely new ones. The King Plan envisaged the provision of feeder roads, neglected so far, and an integrated communication system consisting of four different categories of roads, 2 major and 250 minor bridges and culverts. The report (1938) stated that there were 109.5 miles of railways and 3,179 miles of metalled and unmetalled roadways in Darjiling district. The mileage of roads under each administrative authority and the average annual expenditure on them were given as follows :²

The King Plan

1 Jages Chandra Mitra—*Final Report on the Survey and Settlement Operations in the Darjeeling Terai* (1919-1925); Calcutta, 1927; pp. 3-4.

2 A. J. King—*Comprehensive Report on Road Development Projects in Bengal Vol. VI. Rajshahi Division—Darjeeling District*. Calcutta, 1938. p. 116.

DARJILING

Authority responsible for upkeep	Metalled Roads			Unmetalled Roads		
	Mileage on 31 March 1937	Annual expenditure* (in Rs.)	Average annual expenditure per mile (in Rs.)	Mileage on 31 March 1937	Annual expenditure* (in Rs.)	Average annual expenditure per mile (in Rs.)
Government roads maintained by Communications & Works Department	244.30	3,64,611	1,492	108	8,107	76
District roads maintained directly by District Board & Subdivisional roads maintained by Local Boards working under the District Board	21.17	8,731	412	344	33,521	98
Urban roads maintained by municipalities	25.20	(Not available)	..	14	(Not available)	..
Village roads maintained by Union Boards	..	..	..	2,423	28,880	12
Total	290.67	3,73,342	..	2,889	70,598	..

The width of hill roads varied between 12 and 20 feet, the usual width being 16 feet clear between the parapet and the drain, the of which was metalled.

Mr. King drew up a plan for 309 miles of improved roads in the district consisting of 182 miles of existing metalled, 83 miles of existing unmetalled and 44 miles of new roads. The scheme provided for a mile of improved road for every 3.92 sq. miles of territory or for every 1,034 heads of population and serving approximately 1,091 sq. miles or 90.02 per cent of the total area of the , only 118 sq. miles of which was left unserved by such roads.¹ The scheme provided for direct road links between the

¹ This calculation was based on the assumption that a road or a railway was capable of serving the country lying within 5 miles on either side of it and overlooking the obstruction offered by unbridged rivers.

* Average for quinquennium ending 31 March 1937.

district and subdivisional/thana headquarters, except one of the latter which was to be within 5 miles of an improved road so that a short connecting link could be added at a later stage. The roads included in this plan are listed below :

Sl. No.	From	To	(In miles)	Classification
1.	Siliguri	Darjiling	48	Provincial Trunk
2.	Siliguri	Rhenok	49	"
3.	Sivok	Tipprapara	10	"
4.	Tista Bridge	Rangpo	13	"
5.	Jore Bungalow	Riyang/Rambi	12	District Main
6.	Siliguri	Naksalbari	15	"
7.	Baghdogra	Ghum	46	"
8.	Algarah	Minglass	24	"
9.	Mitabari	Kurseong	16	"
10.	Baghdogra	Debiganj	22	"
11.	Kurseong	Mirik	16	"
12.	Darjiling	Tista Bridge	22	"
13.	Manibhanjan	Jhepi	16	District Secondary

The exigencies of the Second World War called for a quick build up of the strategic roads. By the time the hostilities ceased, some roads had acquired improved surfaces, while the non-strategic ones were badly neglected. Meanwhile, in 1941-42, the Government of India had frozen the Central Road Fund and in 1943 convened at Nagpur a conference of the provincial Chief Engineers to formulate a coordinated road policy for the whole country. The Nagpur Plan envisaged the construction of three main categories of roads—national, provincial and local. The national highways were to carry uninterrupted road traffic across the states while the provincial roads were to serve as the main arteries of trade, commerce and administration. The local roads were classified into two groups : the district roads (further classified into 'major' and 'other') and the village roads ; the former branching off from the national or State highways and lying within 2 to 5 miles of important villages while the latter were the outer links of this network connecting all rural settlements. This is the standard classification of roads all over India today. The King Plan had to be modified in the light of the recommendations of the Nagpur conference and the Government finalized a plan which envisaged the construction and improvement of roads for a period of 20 years beginning from 1946-47. The schedule of priorities was also modified. This revised plan improved upon the King Plan by making provision for village roads and considering the

The Second
World War and
the Nagpur Plan

railways complementary to the highways. The table¹ below gives the lengths of different categories of roads scheduled to be built under the revised plan in the Darjiling district and in West Bengal.

Category of Road	In Darjiling	In West Bengal
National Highways	66 km. (41 miles)	953 km. (592 miles)
Provincial Highways	171 km. (106 miles)	1,718 km. (1,067 miles)
Major District Roads	323 km. (201 miles)	4,755 km. (2,953 miles)
Other District Roads	(not available)	4,540 km. (2,820 miles)
Village Roads	(not available)	9,417 km. (5,849 miles)

After the partition of the province the most crucial need of West Bengal was an arterial road to link the northern region comprising the districts of Darjiling, Jalpaiguri and Koch Bihar with the State capital. Construction of National Highway No. 31 from the Bihar border to Siliguri was, therefore, taken up and it assumed considerable strategic significance as the Calcutta-Siliguri direct railway link was largely intercepted by East Pakistan territories. This short-term programme also included the construction of the Jalpaiguri-Siliguri Provincial Highway and the improvement of the Darjiling-Pedong and Rishi Roads. A separate emergency programme for border roads was drawn up by the State Government immediately after partition and the Union Government was approached for financial assistance. A Technical Committee under the Central Board of Transport examined the programme and submitted its report in June 1949. Paucity of funds and meagre Central assistance posed a problem for the success of this scheme. Work according to the new plan (see table above), however, commenced in 1948 and after it had been in progress for two years, the whole scheme was reviewed by the Planning Commission and certain road building specifications were laid down in 1951² under which the National and State highways in the plains portion of the district were to have 32 feet wide embankments and 12 feet wide metalled crusts (water-bound consolidated surface dressed with bitumen or cement concrete according to the nature and intensity of local traffic),

1 Kalidas Lahiri—*Road problems of West Bengal*; Calcutta, 1950; p. 25.

2 Government of West Bengal, Development Department (Roads)—*Five-year Road Development Programme, 1951-56*; Calcutta, 1954.

the curves and crossings were to bear an average speed of 40/50 miles per hour outside the urban limits and sufficient roadside land was to be kept on either side for future widening. The district roads were to be similar to the State highways in all respects except that the embankment was to be only 24 feet wide. The village roads were to have 16 feet wide embankments and could remain *cutcha* or be provided either with cement concrete or brick trackways and improved culverts so that they might serve as fair-weather roads. During the first two Plans the district made no significant headway in the development of its roads. The following table¹ gives the mileage of roads in Darjiling district maintained by the Government and local bodies.

MILEAGE OF ROADS MAINTAINED BY PUBLIC AUTHORITIES IN DARJILING DISTRICT

Year		1948	1952	1956	1961 +
Works & Buildings Department	T	260.5	329.9	N.A.	362.0
	M	234.9	255.1	N.A.	289.0
	U	35.6	74.8	N.A.	93.0
District Boards	T	521.0	N.A.	324.0	303.0
	M	219.3	N.A.	14.0	3.0
	U	301.7	N.A.	310.0	300.0 + +
Municipalities	T	15.2	N.A.	114.0	117.0
	M	9.5	N.A.	45.0	63.0
	U	5.7	N.A.	69.0	54.0

The emphasis during the First Five Year Plan was on the maintenance of existing roads, in the Second on extending the network to connect all the thana headquarters, in the Third on the construction of major bridges and roads of proper standards as also on linking of villages and border areas. In the Fourth Plan the basic objectives were recast on the basis of the National Road Development Programme (which covers a 20-year period from 1961 to 1981) adopted at the All India Chief Engineers' Conference held in Shillong in 1957. The subsequent recommendations made by the North Bengal Planning Organization may also influence Government policy in this matter.

Road construction
during Five Year
Plans

¹ Source : Statistical Abstracts *West Bengal* for the years 1951, 1956 and 196.

Note : T = Total ; M = Metalled ; U = Unmetalled ;
N.A. = Not available.

+ Figures relate to re-organized district including areas transferred from Bihar in 1957-58.

+ + Includes village roads.

The Shillong Plan improved upon the Nagpur Plan by formulating a more balanced road system with a combination of direct 'through' expressways and ring roads around important towns like Siliguri. However, no systematic work for implementing the recommendations of the Shillong conference has so far been done in Darjiling district. Even the administrative set-up necessary to carry out the scheme as suggested in the Masani Committee Report is not there.

During the first and second Plan periods, a number of roads was transferred from Koch Bihar Construction Division to Darjiling Construction Division, the latter consisting of 3 subdivisions, namely, Raiganj, Siliguri and Darjiling Construction Subdivisions. Of these, the first two embrace parts of West Dinajpur and Jalpaiguri districts and as such a clear picture of the work done within the Darjiling district alone during the Plan periods was not available. During the First Plan, however, earth-work on 26 miles 67 chains (43.2 km.) and asphaltting of only 2 miles (3.2 km.) of ordinary district roads were completed. The roads thus improved were : the Matiali (Jalpaiguri)—Rangu (P.S. Gorubathan) Road between Naksalkhola and the eastern bank of Murti river with a temporary diversion along the Forest Department Road (Khumani-Naksalkhola section), Bijanbari-Pulbazar Road, Darjiling-Pulbazar Road and a portion of the road from Khunia on the Chalsa-Nagrakata Road to the Rango cinchona plantation.

During the Second Plan, new construction, improvement and spill-over work of the First Plan covered 62 miles (99.8 km.) of roadways and the important completed projects were : Naksalbari-Kharibari Road, Kharibari-Phansidewa Road, Khumani-Naksalkhola Road and Naksalkhola-Gauribas Road. It appears that even during the Third Plan, road building continued to be guided largely by administrative rather than economic considerations. "The road development programme of the First Five Year Plan concentrated primarily on the rehabilitation of the truncated road system caused by partition and priority was given to connecting all district and subdivisional headquarters with one another and with the State capital. The Second Five Year Plan extended the road network to connect all thana headquarters by a developed system of roads. Since the first two Plans could not provide adequate funds for maintaining road standards, improving the bridges and providing 'missing links', in addition to extending road mileage, the Third Plan investment on road development was directed primarily to improving the quality of roads, bridges and culverts. The Fourth Five Year Plan is tentatively designed to laying emphasis on road construction serving, among others, industrial concentrations, potential centres of economic growth and underdeveloped areas."1

The progress of work done and the expenditure incurred by the Darjiling Construction Division during the Third and Fourth Plan periods are given in the following statement.¹

**ROAD BUILDING PERFORMANCE OF DARJILING
CONSTRUCTION DIVISION DURING THIRD AND
FOURTH PLAN**

THIRD PLAN			
Sl. No.	Name of Road	Length (in Km.)	Expenditure (in Rs.)
1.	Approach Road to Tista Bridge	0.44	92,471
2.	Road from 6th mile of Ghum-Pashok Road to Tista Valley via Takdah and Rangli Rangliot	N.A.	60,179
3.	Darjiling-Pulbazar-Bijanbari Road		
	(a) Bijanbari-Pulbazar Section	1.7	1,30,211
	(b) Darjiling-Pulbazar Section	19.3	24,31,778
	(c) 4 miles' section in Chongton area	4.1	6,76,783
4.	Matiali-Rango Road : Gauribas-Rango Section	10.2	7,25,516
5.	Bridge over Little Rangit on Darjiling-Pulbazar-Bijanbari Road	Span 46 metres	2,02,157
6.	Mirik-Panighata Road : Balasan Bridge-Mirik Section	25.6	12,18,626
7.	Extension of Pashok-Mangpu Road to Surrel Bungalow	5.2	2,41,566
8.	Kharibari-Phansidewa to Chatterhat (Village Road)	12.9	2,74,464
9.	N. R. Chaudhury Road	N.A.	N.A.
10.	Jore Bungalow-Sukhiapokhri (Village Road)	N.A.	N.A.
11.	Mirik-Panighata Road including Balasan Bridge	5.7	7,24,309
12.	Pashok-Mangpu Road	8	8,51,464
13.	Khumani-Naksalkhola Road	5.5	62,256
14.	Naksalkhola-Gauribas Road	3.3	2,61,928
15.	Road from Khunia on Chalsa-Nagrakata Road to Khunia forest leading to Rango cinchona plantation (Khunia Line)	13.5	4,98,771

¹ Source : Executive Engineer, Darjiling Construction Division.

FOURTH PLAN

Sl. No.	Name of Road	Length (in Km.)	Expenditure (in Rs.)
1.	Road from 6th mile of Ghum-Pashok Road to Tista Valley via Takdah and Rangli Rangliot	19.3	1,50,671
2.	Darjiling-Pulbazar-Bijanbari Road		
(a)	Bijanbari-Pulbazar Section	1.7	80,768
(b)	Darjiling-Pulbazar Section	19.3	3,39,360
(c)	4 miles section in Chong-tong area	4.1	3,17,143
3.	Matiali-Rango Road		
(a)	Gauribas-Rango Section	10.2	1,93,085
(b)	Naksalkhola-Gauribas Section	3.3	255
(c)	Khumani-Naksalkhola Section	5.5	30,953
4.	Bridge over Little Rangit on Darjiling-Puibazar-Bijanbari Road	Span 46 metres	82,174
5.	Mirik-Panighata Road		
(a)	Balasan Bridge-Mirik Section	25.4	15,80,961
(b)	Mirik-Panighata Road including Balasan Bridge	5.7	N.A.
6.	Pashok-Mangpu Road	8	1,841
7.	Extension of Pashok-Mangpu Road	5.2	1,92,527
8.	Bijanbari-Relling Road	N.A.	20
9.	N. R. Chaudhury Road	N.A.	N.A.
10.	Jore Bungalow-Sukhiapokhri (Village Road)	N.A.	N.A.
11.	Jhepi-Lodnama Road	16.1	N.A.
12.	Road from Khunia on Chalsa-Nagrakata Road to Khunia forest leading to Rango cinchona plantation (Khunia Line)	13.5	24,986
13.	Kharibari-Phansidewa to Chatterhat with a link to Bhandarigachh (Village Road)	12.9	16,273

Note : 'N.A.' means figure not available.

The most important thoroughfare in the district is the Ganges-Darjiling Road, now known as National Highway No. 31, which forms part of the great Asian Highway. It has been the principal communication artery in this region since the middle of the 19th century. Great renovations have, of course, been done to it in recent years; new bridges have been constructed and by-passes built to avoid the congested market area of Matigara and the centre of Siliguri town. It is because of this cross-country road which connects National Highway No. 37 in Assam, National Highway No. 31A from Sikkim, National Highways Nos. 30, 33 and 2 in Bihar and National Highway No. 34 from southern West Bengal, that Siliguri has developed into the most important commercial node of North Bengal.¹ There is a 'break of gauge' in the rail system at Siliguri which accounts for the movement of a sizable amount of goods traffic, particularly of relatively high value, non-bulk miscellaneous commodities etc. by road for quicker transport. Kalimpong and the Sikkim areas can only be reached by road from Siliguri. Even in the Terai, road haulage appears to enjoy transport users' preference for short and medium distance goods movement. The unique nodal position which this town enjoys due to important thoroughfares radiating from here is reflected in the high frequency of road communication that either terminates or originates or transits through this town.²

The composition of terminating, originating and transit traffic (in a particular week) given below makes an interesting study.³ The incoming flow largely reflects the nature of local and sub-regional economy. The dominant position of perishable commodities, foodgrains, building materials and timber is due to the rapid rate of urbanization of Siliguri and the flourishing forest based industries. The tea gardens of the Duars, Siliguri-Mainaguri-Patlahowa and Dalkhola-Siliguri road sections together account for nearly three-fourths of the total supply of tea coming

1 "A close look into the employment structure of Siliguri reveals, as for other North Bengal urban centres, the overwhelming importance of the tertiary sector. Nearly 73% of the total workers depend on the tertiary sector, while 24% are engaged in the manufacturing sector including construction. Employment in the transport segment (20%) of the tertiary sector reflects the significant functional role of Siliguri in the region." (*vide* C.M.P.O. —*West Bengal Transport Survey Report*, 1965; p. 79).

2 "During the week-long survey, 14,901 tonnes of goods movement was recorded at Siliguri focal point of which originating traffic was 7,106, terminating traffic 5,861 and transit traffic 1,934 tonnes." (*vide ibid.*, p. 80).

At the instance of the Joint Technical Group for Transport Planning of the Planning Commission, the Regional Planning Wing of the Calcutta Metropolitan Planning Organization was assigned the responsibility of assisting the Eastern Regional Transport Survey with collection and processing of basic socio-economic and physical data and conducting a week-long goods traffic survey at 21 focal points in West Bengal including Siliguri. The week-long survey was conducted during February and March 1965.

into Siliguri. More than 85% of the building materials are supplied by Siliguri-Dalkhola and Siliguri-Mainaguri road sections. The miscellaneous commodity group occupying the largest share in total import, consists primarily of a variety of consumer goods. So long as Siliguri remains the main warehousing and distributing centre for consumers' goods for the North Bengal region as well as parts of North Bihar and the Brahmaputra Valley, such a large inflow of miscellaneous commodities would only be natural.

Commodity groups	Terminating traffic		Originating traffic		Transit traffic	
	Tonnes	Percentage of total	Tonnes	Percentage of total	Tonnes	Percentage of total
Fruits & vegetables	813	14	584	8	48	2.47
Foodgrains	472	8	1,313	18	48	2.47
Tea, coffee etc.	389	7	257	4	266	13.74
Timber	359	6	—	—	107	5.52
Firewood&charcoal	336	6	—	—	—	—
Building materials	303	5	—	—	211	10.93
Mineral oil	—	—	381	5	—	—
Coal	—	—	353	5	61	3.15
Cement	—	—	287	4	—	—
Iron & steel	—	—	—	—	94	4.84
Jute	—	—	—	—	81	4.21
Machinery	—	—	—	—	55	2.84
All others	3,189	54	3,931	56	963	49.83
Total	5,861	100	7,106	100	1,934	100

Large-scale import and warehousing and heavy reliance on railways characterize the movement of foodgrains. Primarily due to the 'break of gauge' factor, export of foodgrains by road is double that of import. Moreover, Kalimpong and other widely scattered tea garden areas of Darjiling and Jalpaiguri districts which are not served by railways have to depend exclusively on road transport for this as well as other commodities. As a matter of fact, Jalpaiguri town is one of the largest receivers of foodgrains from Siliguri. That the railway systems contribute substantially to the origin of grain movement by trucks is attested by the fact that Siliguri imports only 472 tonnes while it exports 1,313 tonnes of grain in a week.

By virtue of its location, Siliguri has also become the main collecting as well as distributing centre of fruits and vegetables. Wholesale vegetable markets are held at Siliguri twice a week and the town imports 812 tonnes and exports 583 tonnes of this commodity per week ; the difference can be accounted for as being consumed locally, since there is very little of rail movement of this perishable commodity.

In the absence of any incoming traffic by road, the origin of the flow of mineral oil, coal and cement from Siliguri can be attributed to the function of this focal point as almost a rail and pipeline terminus for this region ; the main corridors of transshipment of these commodities being the Siliguri-Mainaguri, Siliguri-Dalkhola, Siliguri-Kalimpong and Siliguri-Gangtok road sections.

The transit traffic through Siliguri is only 1,934 tonnes per week or 13% of the total flow. This relatively low proportion of transit traffic indicates that Siliguri is more important as a warehousing and distributing centre. A large proportion of the transit traffic flows, between Assam Valley, particularly Gauhati, and the Calcutta industrial belt, occasioned, partly, by the complete stoppage of inland water transport through East Pakistan (now Bangladesh). It was estimated that on an average Calcutta sends 487 tonnes of goods, mostly consumer products and iron and steel to Assam Valley while Gauhati sends to Calcutta 332 tonnes of goods, mostly tea and jute every week.

The following table gives the lengths of different categories of cement and tarmac roads in the district in 1966.

Cement and
tarmac roads in
the district

Category of Road	Length	
	Miles	Kilometres
National Highway	62	99.8
State Highway	50	80.5
Major District Road	23	37.0
Ordinary District Road	321	516.8
Total	456	734.1

The road mileage in 1970-71 may be stated as follows :

National Highway	128 km.
State Highway	322 km.
Other metalled roads	575 km.

In 1961 the Sadar and Kurseong Local Boards maintained 37 village roads of which only one was metalled and jeepable and ten *cutch* (unmetalled) but jeepable. The total length of these jeepable roads was about 68 miles (111.5 km.). The Siliguri Local Board maintained 14 village roads, two of which were pony tracks and the rest jeepable, though unmetalled. Some of these are only fair-weather roads. The length of jeepable roads under

Village roads

Siliguri Local Board was about 56 miles (90 km.) out of a total of about 112 miles (180 km.). The Kalimpong Local Board maintained only 4 roads, one of which, the Dongra Road with length of about 5.25 miles (8.5 km.), was fully metalled and jeepable. The rest were mere pony tracks running into 12.17 miles (19.6 km.).¹ At present the maintenance of these roads is vested with the Darjiling Zilla Parishad. In 1966 the average width of the village roads in the district ranged from 6 to 10 feet. There is no doubt that more village roads are needed but the Fourth Plan envisaged the construction of only 50 miles of them in the district.² The total length of unmetalled and *Cutchu* roads in 1970-71 was 1,510 km.

The Darjiling Improvement Fund also attends to betterment of rural roads mainly within the various *hats* controlled by it. In 1947, Dash wrote that 13,000 rupees was the annual expenditure it used to incur on roads. (An account of this fund will be found in a later Chapter and the improvement, maintenance and construction of municipal roads in another). The cantonments at Lebong and Jalapahar maintain their own road system very efficiently.

Forest roads

Many roads maintained by the Forest Department are allowed to be used by the public. The more important of them are the Cart Road from Sukhiapokhri to Manibhanjan and Batasi and the Cart Road from Simkona to Lalkuti in the Darjiling Forest Division; the Old Military Cart Road from Ghum to Kurseong in Darjiling and Kurseong Forest Divisions; the Sukna-Sivok Road in the Kurseong Forest Division and the Rissisum-Labha Cart Road, South Boundary Cart Road, Central Cart Road and Dalgaon Tar Cart Road in the Kalimpong Forest Division. In 1961, the latter Division was alone maintaining 316 km. (196 miles) of roads and pathways³ which in 1967 increased to 439 km. (275 miles) comprising 152.3 km. of Hill Motor Roads and Cart Roads, 247.1 km. of bridle tracks and 39.6 km. of other paths. A total length of 60.8 km. of Hill Motor Roads and Cart Roads was constructed in this Division under various development schemes between 1955-56 and 1967-68⁴ while some other roads that were proposed to be constructed in the near future are : Chunabhatti-Lulagaon Road via Nimbong (about 40 km.) to link up with the existing Labha-Lulagaon Road (about 22.5 km.); Labha-Rechilā Chack Road (about 32.2 km.) passing through Kolbong, Rushet and Rhenok; extension of Samsing Hill Motor Road to Tempola

1 B. Ray—Census 1961, *West Bengal, District Census Handbook Darjeeling* Calcutta 1967, pp. 389-90.

2 C.M.P.O.—*Regional Planning for West Bengal*. Calcutta, 1965, p. 57.

3 Source : Divisional Forest Officer, Kalimpong Division.

4 Source : Conservator of Forest, Northern Circle, West Bengal.

(about 4.8 km.) ; Labha-Pakthām Road via Kolbong and Khampong (about 9.7 km.) ; Dalingkot-Pastina Road via Ambyok and Pankhasari (about 32.2 km.) ; West Neora Valley Road to open up forests of West Nar (about 16 km.) ; Paren-Tangta Road via Chi Chu river valley (about 32.2 km.) ; a link road connecting Samsing Hill Road to Paren-Tangta Road and Mo-Pankhasari Road via Thosum and Rechila.¹ Further construction of roads in the other two Divisions has also been taken up in order to reach more and more untapped forest wealth. Some of these roads are Labha-Rishila Road, Samsing Hill Motor Road, Batasi-Palmajua Road etc.²

Estimated figures of carts and pack animals available in the district in August 1947 are given below :

Vehicles & other conveyances

Subdivision		No. of carts	No. of pack ponies and horses
Sadar	Urban	57	1,280
	Rural	20	
Kurseong		44	203
Kalinpong		83	950
Siliguri	Urban	300	414
	Rural	200	

Besides, there were 202 taxis, 101 trucks, 42 buses in public service and about 381 private vehicles (287 cars, 34 motor cycles and 60 lorries), all licensed in 1944. During the Second World War, various restrictions on laden weights for motor vehicles were relaxed on certain roads³ consistent with road safety. Had such restrictions been followed strictly, the number of registered vehicles would not have increased to the extent it has now. The following table giving comparative figures of goods and passenger vehicles in the district in 1956 and 1964 would establish a positive cause and effect relationship between road development, increase in motor vehicles and demand for improved roads.

	1956	1964	Percentage increase
No. of registered goods vehicles	752	1,230	63.56
No. of registered passenger vehicles	1,811	2,527	39.54

1 *West Bengal Forest : Centenary Commemoration Volume*; Calcutta, 1966; p. 98.

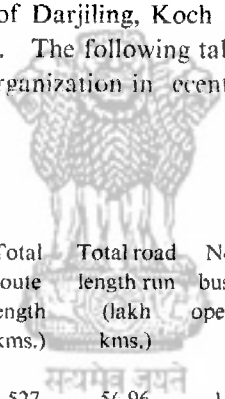
2 Source : Forest Economist, West Bengal.

3 A. J. Dash—*op. cit.*, p. 161.

Since transport cost decreases with increasing pay-load, 10-tonne capacity trucks are frequently seen on the National and State Highways in the district. Trucks of 5 to 9 tonnes' capacity mainly cater to local or semi-local needs in the plains while those up to 5 tonnes' serve the hill portion. With the advancement of modern means of transport, the importance of bullock carts has gone down considerably. The number of bicycles is on the increase in the plains and that of motor cycles in the hills.

Public transport

But for the North Bengal State Transport Corporation road transport in the district is entirely in private hands. The Corporation was formed in 1960 and had a fleet of 153 vehicles in 1965-66 to serve the districts of Darjiling, Koch Bihar, Jalpaiguri, West Dinajpur and Maldah. The following table would give an operational picture of the organization in recent years.



Year	Total No. of fleet services	Total route length (kms.)	Total road length run (lakh kms.)	No. of buses in operation	Total earning (lakh rupees)	No. of persons employed per day
1964-65	13	6,527	56.96	119	55	..
1965-66	44	7,890	66.80	135	69	21,023

The Corporation also operates 20 trucks since April 1965 to carry goods from Calcutta. During 1965-66, the total route length run and the quantity of goods carried were 3.59 lakh km. and 49,000 quintals respectively accounting for an overall earning of Rs. 3.59 lakhs.¹

¹ Government of West Bengal, Finance Department : *Economic Review 1966-67* Alipur, 1967, pp. 52-53.

The following statement¹ gives particulars of bus services run by private agencies in the district in 1967.

**BUS SERVICES RUN BY PRIVATE AGENCIES
IN DARJILING DISTRICT IN 1967**

Name of Route	Route length		No. of buses plying daily
	(km.)	(miles)	
Darjiling to Siliguri	84	53	14
Siliguri (local)	32	20	33
Darjiling (local)	16	10	14
Darjiling to Kurseong	32	20	3
Takdah to Darjiling	27	17	1
Darjiling to Manibhanjan	24	15	2
Kalimpong to Siliguri	68	42	10
Siliguri to Jhallung via Chalsa and Kumai			1
Darjiling to Pokhribong	26	16	1
Siliguri to Rangpo	74	46	1
Siliguri to Gangtok	116	72	1
Siliguri to Bagrakot and Naksalbari	39	24	1
Siliguri to Phansidewa	23	14	1
Kalimpong to Rangpo and Gorubathan	39	24	3
Kalimpong to Pedong	18	11	3

In 1970, the number of private buses was 85 and registered taxis 420.

A list of some of the leading transport operators in the hill portion of the district is given below.

Name & address	Main field of operation
Clubside Motors ; Robertson Road, Darjiling	Agents for travel agencies
Darjiling Motor Service and Co ; Laden La Road, Darjiling	Agents for Sikkim Nationalized Transport; operates regular service to Gangtok
Darjiling Transport Corporation ; Laden La Road, Darjiling	Operates regular luxury services to New Jalpaiguri

¹ Source : Secretary, Regional Transport Authority, Darjiling.

DARJILING

Darjiling Kalimpong Motor Syndicate ; Motor stand, Darjiling	Operates regular services to Kalimpong
Everest Motor Co ; Laden La Road, Darjiling	Agents for I.A.C. and principal travel agencies
Himalayan Automobiles ; Laden La Road, Darjiling	Automobile engineers and Sub-dealers for Hindusthan Ambassador, Bedford Trucks, Willys Jeeps etc.
Siddique Motors ; Robertson Road, Darjiling	Agents for travel agencies
Darjiling Himalayan Motor Service ; Laden La Road, Darjiling	Automobile engineers
Kalimpong Motor Transport Syndicate ; Motor Stand, Kalimpong	Operates regular services to Darjiling and Siliguri
Tashi Pempa Hishey, Kalimpong	Operates locally
Mintri Transport ; Main Road, Kalimpong	Agents for I. A. C.
Pradhan Transport ; Motor Stand, Kalimpong	Operates local services

Besides these, the Sikkim Nationalized Transport, a Government of Sikkim undertaking, operates services to Darjiling, Kalimpong, Siliguri and many parts of Sikkim. All these operators run taxi, jeep and landrover services. Taxis do not run on meters and they are usually shared. Taxi fares on the main routes are as follows : (1) Bagdogra to Darjiling : Rs. 12 for single seat, Rs. 50 for full car (2) Siliguri to Darjiling : Rs. 6 to Rs. 9 for single seat, Rs. 45 for full car (3) Darjiling to Kurseong : Rs. 3 to 5 for single seat, Rs. 30 for full car (4) Darjiling to Kalimpong : Rs. 7 to 8 for single seat, Rs. 80 for full car and (5) Darjiling to Gangtok and back : Rs. 150 for full car. These figures are, however, far below the revised rates of 1974 when there was a global petrol shortage and repeated revision of costs.

The North Bengal State Transport Corporation has been running a daily express bus service between Calcutta and Siliguri from 15 May 1968 which covers the distance in about 15 hours. It also operates a sleeper bus (named Kalahamsi) daily on this route.

RAIL ROADS

Origins of Railways
in the district

The construction of the 2 feet wide narrow gauge section between Siliguri and Darjiling of the Darjiling Himalayan Railway was started under the Managing Agency of Messrs. Gillanders Arbuthnot and Co. in 1879. The portion between Siliguri and Kurseong (52 km.) was opened on 23 August 1880 and that between Kurseong and Darjiling (29 km.) in 1881. This main line of the D. H. Railway starts from Siliguri, 398 feet above sea-level, and runs level along the Hill Cart Road for about 18 km. to Sukna. It then begins to climb the foothills, reaching the highest altitude of 7,407 feet at Ghum station, 75 km. from Siliguri and thereafter descends for about 6.4 km. till it terminates at Darjiling at an altitude of 6,812 feet.

In 1913 the Darjiling Himalayan Railway Extension Co. started the constructions of the Tista Valley (Siliguri-Gielkhola) extension and Siliguri-Kishanganj extension and completed the projects in 1915. The former was abandoned after it suffered extensive damages due to landslides in the wake of the severe earthquake of 15 August 1950. The Siliguri-Kishanganj extension branches off south-west from the main line at Panchani Junction, 5 km. (3 miles) from Siliguri and passes through Matigara Hat, one of the biggest marts in the district, and Baghdogra before it reaches Naksalbari near the Nepal border which is an important exporting centre of rice and timber from the State. "Up to this station a first class road runs parallel to the rail line and now carries quite a large quantity of traffic by motor vehicles and bullock carts. From Naksalbari the line runs south-west. The tea gardens are left behind and the line enters an area of rice-fields. The next large station is Galgalia which is 29 miles (27 km.) from Siliguri, just inside the Bihar border and only a mile from the border of Nepal. This place is a depot of paddy from Nepal and supplies rice to the whole District of Darjiling."¹

The properties owned by the D. H. Railway Co. Ltd. and D. H. Railway Extensions Co. Ltd. were purchased by the Government of India on 20 October 1948 in order to convert a part of the system into metre gauge for laying a direct rail link to Assam exclusively over Indian territory.² The management of the system was taken over by the old Assam Railway on 24 December 1949,³ the original Siliguri-Kishanganj extension was abandoned and the Assam Railway Link Project constructed in its place metre gauge lines from Siliguri Junction to Kishanganj between July 1948 and December 1949. A branch line was also opened between Siliguri Junction and Siliguri Town Junction (about 2.5 km.) on 9 December 1949.

¹ A. J. Dash—*op. cit.*, p. 191.

²⁻³ Government of India, Ministry of Railways (Railway Board)—*History of Indian Railways*; Simla, 1952; p. 14.

The present Siliguri-Haldibari metre gauge section was originally a part of the broad gauge main line of the old Bengal Assam Railway. After the partition of the province, the management of this portion was made over to the Eastern Bengal Railway (East Pakistan) as it had no direct link with any of the Indian State Railway exclusively through Indian territory. On the linking of Assam with the rest of India by rail and road communications running exclusively over Indian territory, this portion was taken over by the old Assam Railway on 20 January 1950 and was converted to metre gauge¹ and the metre gauge portions Siliguri-Jalpaiguri and Jalpaiguri-Haldibari were opened to passenger traffic on 23 and 26 January 1950 respectively.²

With the extension of the broad gauge line up to New Jalpaiguri (8 km. from Siliguri Junction and 5 km. from Siliguri Town), the narrow gauge line was extended in April 1964 from its old terminus at Siliguri Town to New Jalpaiguri which thereafter became the terminus and transshipment point from broad to metre and narrow gauges and *vice-versa*.

In pursuance of the Union Government's policy to re-group the Indian Railways into six zonal systems for imparting greater efficiency and economy in their operations, the Oudh and Trihut and the Assam Railways were merged to form the North Eastern Railway on 14 April 1952.³ Further regrouping resulted in the creation out of the North Eastern Railway of another zone called the North-East Frontier Railway, which included the railway system in Darjiling district.

Points connected
and important
stations

Besides certain long-distance trains passing through the district to connect Assam on the one hand and Bihar and U.P. on the other, a few local trains ply exclusively within the district between New Jalpaiguri and Darjiling while some others run between New Jalpaiguri and Haldibari in Jalpaiguri district, the respective number of services being given below :

Route	No. of Local Trains	
	Up	Down
New Jalpaiguri-Darjiling	2	2
Kurseong-Darjiling*	1	1
Tindharia-Kurseong*	1	1
New Jalpaiguri-Siliguri**	2	2
New Jalpaiguri-Haldibari	3	3

*operates only on week days.

**runs along the metre gauge line and includes one through train.

1 *op cit.*, p. 3.

2 *loc. cit.*

3 Government of India, Ministry of Railways (Railway Board)—*Indian Railways One Hundred Years : 1853-1953*; New Delhi, 1953; pp. 162-65.

The important stations of the N. F. Railway in the district are Siliguri Town, Siliguri Junction, New Jalpaiguri, Darjiling, Sukna, Tindharia, Kurseong, Sonada, Ghum, Baghdogra, Matigara and Naksalbari, which handle a sizeable proportion of the passenger and goods traffic of the Railway.

The Siliguri-Darjiling section of the N. F. Railway carried 1,05,310 and 1,20,470 passengers in 1965-66 and 1966-67 respectively and its earnings on this account were Rs. 3,41,390 and Rs. 3,04,222 respectively during the same years. It also earned a total of Rs. 90,320 in 1965-66 and Rs. 1,45,374 in 1966-67 on account of other coaching traffic and miscellaneous items. Its earnings on goods traffic were Rs. 12,16,000 and Rs. 10,24,000 as against 58,546 and 51,145 tonnes of goods carried respectively during the same years.¹

Passenger and
Goods Traffic

That this section is running at a loss will be evident from the following table² which gives figures of its earnings and expenditure from 1959-60 to 1966-67.

(Figures in lakhs of rupees)

Year	Earnings	Expenditure
1959-60	13.33	53.01
1960-61	14.23	41.86
1961-62	16.33	41.99
1962-63	15.87	58.53
1963-64	19.55	60.32
1964-65	15.25	84.72
1965-66	16.47	71.94
1966-67	14.72	57.18

The Siliguri-Darjiling section of the N.F. Railway is an added attraction to visitors who flock to Kurseong, Darjiling and adjacent places of interest during summer and autumn of every year and thus supplement the district's income from other sources in a significant way.

Keen rail-road competition places this section at a disadvantage inasmuch as road transport is comparatively cheaper and quicker. The following information of the movement of tea by rail and road may be of some interest here.

Rail-road
competition

Transport charges for tea
per quintal to Calcutta
(in Rs.)

		By railway	By road
From	Darjiling	19.66	9 to 12
„	Ghum	19.66	9.50 to 12.50
„	Kurseong	16.95	11 to 12.50

1-2 Source : Deputy General Manager, N. F. Rly., Katihar.

The transit-time taken by rail to Calcutta is 4 to 6 days while by road it is 3 to 4 days.¹

Waterways, Bridges and Ferries

The rivers of the district, except for short stretches in the plains, are not suitable for navigation.² In the lower reaches of the major rivers, small country boats or dug-outs are used for crossing them but there is no regular means of communication by water.

Ferries

Excluding minor private ferries, such as those mentioned by Hooker, there were in the 1930s, according to King's Report, 5 recognized public ferries in the district, all controlled by the District Board.³ Particulars of the more important of them are given below.⁴

Name of ferry	Average annual income during 1932-37 (in Rs.)	Stream crossed	Period for which ferry plied	Depth of water during winter (in ft.)	Width of river at ferry point (in ft.)
Sivok	587	Tista	October-May	12	1,000
Dumukha-Duramari	94	Mahananda	July-October	1.5	420
Champasary	66	Tista	October-May	10	800
Phansidewa	60	Mahananda	July-October	3	460

Neither the Zilla Parishad nor the Darjiling Construction Division controls or maintains any ferry in the district at present. The old ferries have since been replaced by bridges. For example, a road bridge on the Tista near Sivok has replaced the Sivok ferry and a girder bridge with *sal* poles now takes the road from Dumukha to Duramari across the Mahananda.

1 Source : Deputy General Manager, N.F. Railway, Katihar.

2 According to the N.C. A.E.R., the Tista is navigable from the Sivok railway bridge to the border of Bangladesh, a distance of over 54 miles. (*vide* Techno-Economic Survey of West Bengal, New Delhi, 1962; p. 166).

3 A. J. King—*op. cit.*, Vol. VI, p. 915.

4 *Ibid.* Appendix III.

The numerous bridges in the district are variously constructed; they range from ingenious contraptions of cane and bambo to elaborate reinforced concrete structures. An account of the indigenous bridges seen by Hooker has been given earlier in this chapter. O'Malley reported a type of native bridge called *jahunga* which was built entirely with bamboos and canes cut from the neighbouring forests and was remarkable for its lightness and simplicity of construction. The piers for such bridges were trees or rocks on either bank. Sometimes, where the span was small, a truss consisting of bamboos was placed on each side of the bridge, these trusses forming huge loops stretching from one bank to the other. "Another bridge of an indigenous pattern", wrote O'Malley, "is the log bridge built on the cantilever principle. Huge logs project upwards from either bank, where they are kept in position by heavy rocks piled over them, other logs are lashed over the first, and each successive layer overlaps the other until the projecting beams come close to one another. A small platform is then laid over the small space dividing them, and the bridge is complete.

"These native bridges have now been largely supplanted by the more substantial and durable bridges of the Public Works Department. If the span is under 100 feet, Howe truss or girder bridges are built, and for longer spans suspension bridges are built. The latter have the advantage of not being destroyed by the heavy rainfall and great humidity which rot wood, bamboo and cane; they are not so liable to be swept away by floods; and they are cheaper than stone or iron girder bridges. It is, indeed, impossible to construct the latter over the larger rivers, because piers cannot be sunk in the rocky beds down which the water sweeps with the rapidity of a torrent. Besides this, it is easy and cheaper to bring long cables up and down the hill-sides, and they can be carried round corners which a large girder could not pass. A typical example of the suspension bridge now becoming common in the district is that over the Tista on the way to Kalimpong,¹ which has a span of 300 feet between abutments and is swung 20 feet above flood level."²

¹ The reference is to the Old Tista Bridge which was replaced by the Anderson Bridge.

² L.S.S.O' Malley—*op. cit.*, pp. 135-36.

DARJILING

Following is a statement from King's Report which gives a comprehensive picture of the bridges on certain lengths of railways and roads in Darjiling district in the thirties of this century.

		Railways	Government Roads	District Board Roads
Length of rail or road surveyed (in miles)		50.5	59.3	45.2
BRIDGES				
Up to 5 ft.	No. of bridges	71	97	59
	Running feet	723	338	167
Between 5 & 10 ft.	No. of bridges	11	29	21
	Running feet	72	261	156
Between 10 & 25 ft.	No. of bridges	29	13	6
	Running feet	427	218	100
Between 25 & 50 ft.	No. of bridges	7	8	3
	Running feet	269	314	86
Between 50 & 75 ft.	No. of Bridges	4	7	3
	Running feet	240	411	202
Between 75 & 100 ft.	No. of Bridges	1	3	1
	Running feet	80	240	76
Above 100 ft.	No. of bridges	7	10	—
	Running feet	2,150	1,952	—
Total running feet of bridges		3,461	3,734	787
Total No. of bridges		130	167	93

Nine important bridges in Darjiling was constructed under the direction of the Provincial Government before Independence.

When the District Board was first constituted in 1922, none of the roads handed over to it was metalled or bridged. By August 1947, however, many suspension, girder and wooden bridges,

protective walls, revetments and culverts were built, the number of such bridges being thirty.

In 1966 the Zilla Parishad was maintaining about 73 bridges of which 51 were wooden, 15 suspension and the rest were either girder or reinforced concrete or cast iron or rail bridges. Besides those mentioned in the preceding list, the Zilla Parishad also maintains the following bridges.

Road No.	Name of Road	Name of Bridge with location	Nature
9	Lamidara Bloomfield to Chungtong	Lizahill Bridge	Not known
18A	Pulbazar to Suberkam	Jhepi Bridge	Reinforced concrete
18A	„	Charcharia Bridge	Wooden
18A	„	Tampua Bridge	„
18A	„	Chiwa Khola Bridge in Lodhama Hat	Lattice-girder
18A	„	Lodhama Khola Bridge	Wooden
18A	„	Sreekhola Bridge	„
18B	Pussimbing song and Sumri-pani T. E. Road No. 13	Toong-Tungsong Bridge	Suspension
10	Rangbul to Namsu Bridge via Pulbazar and Rong-bong	Bridge on left approach of Malotia	Not known
10	„	Malotia Bridge	Suspension
19A	Sepoydhura to Road No. 19 Old Bazar	Pangrakhola Bridge	Lattice-girder
20	Ghoonti to Namring	Chhangikhola Bridge	Wooden
22	Namsu to Dudhijhora	Bongkhola Bridge	Wooden on rails

1. Source : Executive Engineer, Darjiling Zilla Parishad.

26A	Sepoydhura Bazar to junction with Chat-akpur Namsu Road No. 21	Lattice-girder bridge	Lattice-girder
30A	Panighatta to Mechi	Bridge on Chenga River	Girder
30A	„	Bridge on Manjwa river	„
31	Naksalbari to Ambari (Thakurganj)	Three wooden bridges	Wooden
32A	Khariabari to Galgalia	Boon Bridge	„
33	Khaprail to Hill Cart Road	Wooden bridge	„
33	„	Girder bridge	Girder
40	Dumriguri Inspec- tion Bungalow to Phansidewa via Baghdogra Hulia Bridge	Four log bridges	Wooden
Village Road No. 3	Old Siliguri to Matigara village road	—	Girder bridge with sal pile and planked roadway
49	Atal to Cambrain	—	Wooden

In 1966, the number of bridges maintained by the Darjiling and Siliguri Construction Divisions was well over fifty.

The unprecedented floods of 1968 washed off the Anderson Bridge at Tista Bazar on 14 October. Through prodigious efforts, army engineers attached to the Border Roads Organization put up on 12 January 1969 a 'Bailey Bridge' with the assistance of the General Reserve Engineer Force. The new bridge, which has restored direct surface communication with Kalimpong, is capable of taking loads up to 3 tons. The army engineers have taken up the construction of another all-weather suspension bridge at the Anderson Bridge site which can take heavier loads. It would be 5 feet more in height than the Anderson Bridge. All the seven bridges on the Tista Valley Road, namely those at Rambi, Seti, Hanuman, Jorepul, Gielkhola, Singi and Chitray, were also washed

away. Likhubir, an area about 2 miles from Tista Bazar, was so badly damaged that at first no contractor came forward to repair the road for which 6,000 men and women had to be employed and the overall expenditure was about 1.5 crores.¹

In terms of both goods and passenger traffic, the airways are playing an increasingly important role in the economy of the district. 14 km. (9 miles) from Siliguri, Baghdogra is now the second most important airport after Dum Dum. The air services between Calcutta (Dum Dum) and Baghdogra covering 279 statutory miles, have restored, at least partially, through communication between the northern and southern parts of the State truncated by partition. Baghdogra which served as a small air-base during the Second World War, has an all-weather runway now. There is a railway station nearby skirted by the National Highway No. 31. Another road from Baghdogra to Tirana is fit for heavy motor traffic. The Indian Airlines Corporation operates a daily service between Dum Dum and Baghdogra which carries passengers bound for various places in Darjiling and Jalpaiguri districts as also Sikkim and Bhutan. Several private airlines also serve the district from aerodromes located in Jalpaiguri districts, such as at Ambari-Falakata and Panga, 108 and 128 miles respectively from Darjiling. They cater mainly to the needs of the tea industry near the destination points. The old Dakotas of the private airlines carry passengers and goods together. The Indian Airlines Corporation fly Viscount and Fokker Friendship aircrafts which take about 90 minutes to cover the distance. Helipads in and around the cantonments in the district are of restricted use and their better utilization for rescue purposes during landslides has not yet received serious attention.

AIR TRANSPORT

Air-lines & Aerodrome

In O'Malley's time (1907) there was no ropeway in the district. The following is an account of ropeways in the district. The Kalimpong Ropeway Co. Ltd. was formed in 1928 for the purpose of transporting commodities between the town of Kalimpong and the Darjiling-Himalayan Railway in the Tista Valley. Previously Kalimpong had had to rely on bullock carts and coolies for the transport of all goods. The ropeway, designed by the British Ropeway Engineering Co. Ltd., London and erected by their engineers, was opened in September 1930...

OTHER MEANS OF TRANSPORT Ropeways

"The ropeway connects with the railway at Rilli (near Riyang Station) and, after crossing the Tista and Rilli rivers, passes through an angle station at Nazeok and thence, crossing the Rilli river again, rises to Kamesi (2,500 feet) where is situated a 72 H.P. engine which drives the lower section of $4\frac{1}{2}$ miles. From Kamesi the ropeway travels in one straight line of $2\frac{1}{2}$ miles to Kalimpong (4,100 feet) where another 72 H.P. oil engine is installed to drive

¹ Source : *Anrita Bazar Patrika*, dated 19 January.

the upper section. Loads are carried on trays which are suspended from and clipped to the moving rope. On arrival at the station the carriers are automatically lifted off the rope and run on overhead rails into the station. Each carrier is designed to carry 8 maunds (double carriers up to 13 maunds) and is launched out on the moving rope at 3-minute intervals to ensure economic working and equal load distribution. The carrying capacity of the ropeway is 10 tons per hour. Traffic consists mainly of baled wool, oranges and timber outward and food-grains, brick-tea, cloth and building materials inward. The maundage carried steadily increased until in 1939-40 over 4,75,000 maunds were handled... The ropeway has proved to be an efficient and economical form of transport.

The ropeway from Darjiling to Bijanbari has a length of 5 miles and is constructed on the Mono-cable "Breco" system. It is owned by a public carrying company, the Darjiling Ropeway Co. Ltd. The ropeway was opened for traffic in January 1939. It has two intermediate stations at Singta and Changtang and carries an average annual maundage of 1,50,000. Its carrying capacity per hour is 100 maunds and it is powered by one 24 B.H.P. diesel oil engine at Darjiling and a similar one at Singtam. It serves Bijanbari which is an important centre for trade from Eastern Nepal and Western Sikkim and an important tea garden, forest and Khas Mahal area. Potatoes, vegetables, poultry, cardamoms and forest produce are carried up to Darjiling and cloth, yarn, sugar, salt, kerosene and metals are carried down.

In addition to the above public ropeways sanctioned under the Bengal Aerial Ropeways Act, 1923, there are a number of private ropeways on tea gardens of which the following deserve mention :

		Power
Mondakoti to Dhojea	1½ miles	Oil engine
Brewery to Ringtong	2 "	Electricity
Ringtong to Balasan	2 "	Electricity
Balasan to Murmah	2 "	Water power
Liza Hill Tea Estate	1½ "	Water power
Thurbo Tea Estate	¾ mile	Hydro-electric
Gopaldhara Tea Estate	1 "	Water power
Namring Tea Estate	¾ mile	Hydro-electric
Pashok Tea Estate	¾ miles	Hydro-electric
Gayabari Tea Estate to Tingling	1½ and 1 mile	Gravity
Phuguri Tea Estate	¾ mile	Gravity
Singballi Tea Estate	¾ and 1 mile	Gravity" ¹

¹ A.J.Dash—*op. cit.*, pp.196—98.

The Kalimpong Ropeway Co. Ltd. is now defunct and, since 1966, its place has been taken by a new ropeway owned by the Samthar Co-operative Multipurpose Society Ltd. (popularly known as SAMCO). The cost of recommissioning it, namely Rs. 2½ lakhs, was donated by the Swiss Technical Co-operation Organization, Switzerland. Installed by the Lasso Ropeway Co. Ltd. of Basel, Switzerland, it has a total length of 1,470 metres (0.9 miles) and a carrying capacity of 3 tonnes per hour for one way traffic and 6 tonnes per hour for both way traffic. The ropeway runs over the Tista and Rilli rivers and carries various agricultural and forest produce from Suruk, Samthar, Sinji and Yangmakun Khas-mahal forest blocks.

The Darjiling-Bijanbari Ropeway of the Goenkas now serves the intermediate station of Jail Angle in addition to Singtam and Chongtang. With the availability of this easy transport, agriculture, horticulture, dairy farming and bee-keeping have developed considerably in the Bijanbari-Pulbazar area. Import of hides and medicinal plants from across the borders of Nepal and Sikkim has also increased to a great extent.

The only other ropeway opened since Independence connects Darjiling with Singla Bazar. Based on an eight-hour-a-day schedule and a rope-speed of 3 metres per second, it is designed to carry 4,000 tonnes of goods and 10,000 passengers a year. With a haulage capacity of 1.5 tonnes per hour uphill and downhill and a horizontal length of 8,291 metres and a lift of 1,699 metres, the ropeway is divided into four sections from Lebong Road station to Takvar Tea Estate (Station II), from Takvar to Barnesbeg Tea Estate (Station III), from Barnesbeg to Singla Tea Estate (Station IV) and from Singla Tea Estate to Singla Bazar (Station V). The goods car can carry 1,500 lbs. (or 75 cft.) and the passenger car 4 seated and 2 standing travellers at a time.

Another proposal is to construct a ropeway linking Manibhanjan with Sandakphu and Phalut which would eliminate the arduous road journey along the Nepal Frontier Road.

The curtain on tourist traffic to the Darjiling hills rose with the establishment of a sanatorium at Darjiling in 1835 for "British residents of Bengal and Burma" who, since then, started visiting this 'queen of hill stations' in increasing numbers for rest and recuperation. In 1839 the Darjiling Family Hotel, the first of its kind in the town, started business with 12 rooms. It was soon followed by Wilsons Hotel, which was established by the proprietor of the hotel of the same name in Calcutta, now known as the Great Eastern Hotel, in a two-storied house containing 18 rooms.

TRAVEL & TOURIST FACILITIES

Old time hotels and dak bungalows

As regards early dak bungalows, we learn from Hooker's description that there was one at Pankhabari which "nestled in woods crowning a lateral knoll." The Kurseong dak bungalow where he stopped for a few hours, was also superbly placed on a narrow mountain ridge. He also stayed at the Pacheem dak bungalow, "the most sinister-looking rest-house I ever saw, stuck on a little cleared spur of the mountain, surrounded by dark forests, overhanging a profound valley, and enveloped in mists and rain, and hideous in architecture."¹ In O'Malley's time (1907), there were only 3 dak bungalows in the district at Kurseong, Pankhabari and Siliguri besides 14 other inspection bungalows, the particulars of which, as stated by him, are given below.

Location	Distance (in miles) from Darjiling	Height (in ft.) above sea-level
Badamtam	7½	2,500
Jorpokhri	12½	7,400
Kalijhora	32	550
Kalimpong	(via Tista Bridge) 28	4,000
	(via the Rangit) 32	
	(via Peshok)	
Mirik	26	5,000
Peshok	18½	3,300
Pedong	43	4,760
Phalut	50	11,811
Rangarun	7½	5,700
Rayeng	25	625
Sandakphu	37	11,929
Senchal	6	8,000
Tanglu	23	10,074
Tista Bridge	19	710
	(via the Rangit) 22	
	(via Peshok)	

With the expansion of the activities of various Departments of a welfare State, the number of dak bungalows, inspection bungalows etc. in the district has considerably increased since the days of O'Malley. An up-to-date list of these rest-houses primarily meant for touring officers is given in an Appendix at the end of this volume.

1 A. D. Hooker—*op. cit.*, pp. 70-76.

2 L. S. S. O'Malley—*op. cit.*, p. 142.

Trekking in Darjiling and Sikkim can provide immense pleasure, if properly planned. Dozey gave a list of tours (*vide* Appendix I to this chapter), which may still serve as an excellent guide to the adventurous hiker.¹

Trekking

The hotel business in the district tends to be confined to two short seasons—summer and autumn and many establishments have a precarious existence during the rest of the year when tourist traffic is low. Among the oldest hotels in Darjiling town are the Woodland, Eden Sanatorium, Lowis Jubilee Sanatorium, Drums Druid, Rockville (also called Grand), Bellevue (destroyed in the 1934 earthquake), Central Hotel and Hotel Mount Everest. The last, which is still the best, was opened on 12 October 1915. In Dozey's words : "To say that this palatial structure is unique is but to repeat a truism, for it is unsurpassed by any building of similar nature in the East. The hotel which commands a view of over 100 miles of the snowy range and stands well above the town on the Auckland Road, was designed by Mr. Stephen Wilkinson, the architect. At present the building consists of a central block, with a north or right wing attached thereto, and contains 120 rooms furnished with all appliances which go toward making life comfortable. But when the existing annexe is demolished and the left wing added the number of dwelling rooms will be increased to 170. On the ground floor is a large lounge, which is 85 × 50 feet, luxuriously fitted. From the east of this hall the ascent to the dining room above is made by the grand staircase, which is one of the features of this building, being 16 feet in width until midway when it branches off to right and left....This building already possesses a most imposing frontage, but when the scheme has been given full effect to and the left wing added, Darjiling might well be proud of possessing one of the grandest and most up-to-date hotels in Orient."²

Hotels

Appendix II to this chapter gives particulars of the more respectable of the myriad hotels in Darjiling town. The bars and restaurants are too numerous to receive individual treatment.

Since April 1966, the Government of West Bengal has been running two tourist lodges at Darjiling. The one on the Mall Road has 15 double-bedded accommodation. All the rooms have telephones (Nos. 656-58) and heating arrangements. Reservation of accommodation is made by the Assistant Director of Tourism, Ajit Mansion, Nehru Road, Darjiling (Phone : Darjiling-50). The other tourist lodge, called Sailabas, at Jalaphar (Phone-684) may also be booked from the Tourist Bureau, Govt. of West Bengal, 3/2, Dalhousie Square East, Calcutta-1, (Phone 23-8271). It is an economy class tourist lodge and

1 E. C. Dozey—*op. cit.*, pp. 236-37.

2 E. C. Dozey—*op. cit.*, pp. 28-29.

is very popular. The following hotels at Darjiling are also worthy of mention ; Ashoka Hotel, Rock Ville Road; Evergreen Hotel, Burdwan Road ; Himalayan Place, Laden La Road ; Himalchuli Hotel, Dr. S. M. Das Road; Kundu's Hotel, Rock Ville Road; Kunjini Hotel, Gandhi Road ; Stuart Lodge, Dr. S. M. M. Das Road and Tiffany's Lodge, Ashley Road. Other places of accommodation at Darjiling are the Y. M. C. A. on Ashley Road, Darjiling Club on Gandhi Road, Tea Planters' Association on Nehru Road, Mohanlal Shewlal Dharmsala at Judge Bazar and Anjuman Islamia on Masjid Road.

The only dharmsala at Kurseong is known as Hardeodass Srilal Dharmsala. There are 4 hotels at Kalimpong, worth mentioning : Himalayan Hotel, Park Hotel, Hill View and Tripti Hotel. Atourist lodge has recently been opened by the State Government at Kalimpong. There is also a dharmsala at Kalimpong called the Ratiram Bansilal Dharmsala. Of the hotels at Siliguri, Gitanjali Tourist Hotel, Delhi Hotel, Ranjit Hotel, Air View Hotel, Savoy Hotel and Hotel Broadway may be mentioned.

Promotion of Tourism

Besides the Tourist Bureau at Darjiling, there are information counters run by the Tourism Directorate at the Baghdogra airport, Siliguri railway station and Kalimpong tourist lodge. A fair amount of official publicity is carried on in India and abroad through advertisements and distribution of publicity literature. Of late, there has been an influx of people belonging to the middle and low income groups.

Anticipating the relaxation of restrictions on foreigners, travel in North Bengal, development of Siliguri as a major transport node and the introduction of I.A.C. flights from Delhi and Katmandu to Baghdogra (there is already a service from Patna to Baghdogra), the State Government has decided to shift the tourism headquarters in North Bengal to Siliguri and to set up motels there.

POSTS & TELEGRAPHS

The exact date or year when postal service was first introduced in Darjiling district is not known. But from Hooker's account it appears that even before 1854¹ there was a rudimentary postal system run by couriers who travelled on horseback or on foot. In 1907 O'Malley wrote : "There are altogether 305 miles of postal communication and 33 post offices in the district. No detailed record exists of the number of postal articles delivered annually, but from an enumeration made in August 1905 and February 1906 it appears that on the average, 5,650 articles of all

1 On 1 October 1854, the first postage stamp was issued on an all-India basis. In the same year the postal department was also recognized as a separate organization of national importance.

classes, such as letters, post-cards, newspapers and parcels, are delivered daily in the district. The value of money-orders issued in the year 1905-06 was Rs. 16,45,000 and of those paid Rs. 10,83,800 ; while the total amount of savings bank deposits was Rs. 1,14,700. There are also 14 telegraph offices from which over 55,000 messages were issued in 1905-06 ; these offices are situated at Darjiling, Baghdogra, Ghum, , Jalapahar, Kalimpong, Kurseong, Lebong, Nagri Spur, Naksalbari, Panighatta, Pankhabari, Rangli Rangliot, Siliguri, and Sonada.”¹ The Darjiling Head Post Office on Laden La Road (previously Mackenzie Road) has been occupying its present premises since 2 May 1921.

The growth of postal communication in the district was very rapid after World War II. In 1943-44 Darjiling town alone accounted for the issue of 41,789 telegrams, 59,836 registered mail and 56,691 parcels while money orders issued and received were valued at Rs. 18,02,981 and 1,55,821 respectively. In the same year the Darjiling Head Office and its 5 sub-offices delivered on an average 3,204 unregistered articles every day.²

“The following figures give the volume and class of work done in the Post Offices in the District during the year 1943-44.

(1) Number of registered articles posted	1,64,672
(2) Number of registered articles delivered	1,99,208
(3) Insured articles delivered—	
Number	17,145
Value	Rs. 30,49,108
(4) Insured articles posted—	
Number	16,428
Value	Rs. 53,45,862
(5) Savings Bank deposits	Rs. 8,88,367
(6) Savings Bank withdrawals	Rs. 5,65,835
(7) Defence Savings Certificates issued	Rs. 2,449
(8) Defence Savings Certificates discharged	Rs. 17,291
(9) Cash certificates issued	Rs. 59,232
(10) Cash Certificates discharged	Rs. 82,896
(11) National Savings Certificates issued	Rs. 15,810
(12) Value of Postage Stamps and stationery sold	Rs. 5,95,341
(13) Money orders issued—	
Number	1,35,781
Value	Rs. 43,98,096
(14) Money orders paid—	
Number	1,28,998
Value	Rs. 1,79,26,942

1 L. S. S. O'Malley—*op. cit.*, p. 142.

2 A. J. Dash—*op. cit.*, p. 198.

(15) Number of telegrams delivered	74,972
(16) Number of telegrams despatched	77,100
(17) Daily average number of unregistered articles delivered	12,430
(18) Daily average number of unregistered articles despatched	12,821 ¹

The number of post offices of different categories functioning in the district at the time of Independence (15 August 1947) was as follows :²

	Darjiling District	Sikkim	Tibet
Combined Head Office	1	—	—
Combined Sub-Offices	22	3	3
Non-Combined Sub-Offices	3	—	—
Departmental Branch Offices	1	—	—
Extra-Departmental Branch Offices	16	9	—
Extra-Departmental Sub-Offices	—	1	—

The number of post offices established during the first three Plan periods is shown in the following table.

		First Plan	Second Plan	Third Plan
Non-Combined Sub-Offices	Darjiling	1	2	3
	Sikkim	—	—	—
Combined Sub-Offices	Darjiling	—	—	2
	Sikkim	—	—	1
Extra-Departmental Sub-Office	Darjiling	—	—	1
	Sikkim	—	—	—
Extra-Departmental Branch Offices	Darjiling	11	3	20
	Sikkim	7	2	14

A detailed list of the post offices in Darjiling Division and their locations will be found in Appendix III at the end of this chapter.

This Division was created in 1952 with 76 post offices and 29 telegraph offices and a Superintendent of Post Offices at its head. By 1954 the number of post offices under it increased to 80 but that of telegraph offices fell to 23. In 1960 there were 90 post offices, 26 telegraph offices and 5,084 radio licences in force in the district³ while in 1967 the corresponding number of post offices of all categories was 99 including 8 non-delivery post offices. In the latter year post offices of all descriptions in Sikkim totalled

¹ *Ibid.*, p. 199.

² Source : Superintendent of Post Offices, Darjiling Division.

³ *Census 1961, West Bengal, District Census Handbook Darjiling*. Calcutta, 1967. p. 392.

42 including one non-delivery post office. In July 1968, the Siliguri Sub-Post Office was upgraded to a Head Post Office with 30 sub-post offices under it, including some in the Sikkim State.

In the old District Gazetteer of Darjiling, published in 1947, Dash wrote : "There are nearly 300 miles of line maintained by the Telegraph Engineering Department. There is a direct line from Darjiling to Calcutta which is worked on the duplex system and direct lines from Darjiling are worked on the closed circuit system to Yatung, Kalimpong, Gangtok, Saidpur, Mirik and Lebong. The Darjiling-Saidpur circuit serves the following stations : Sonada, Tung, Kurseong, Tindharia and Siliguri. The Darjiling-Yatung circuit serves Kalimpong, Rhenok, Gangtok and Yatung. The Darjiling-Kalimpong circuit serves Rangli Rangliot, Lopchu and Tista Bridge. The Darjiling-Mirik circuit serves Jalapahar, Ghum, Sukhiapokhri and Nagri Spur. Darjiling works Lebong direct. There is another circuit from Dow Hill to Saidpur, which serves Kurseong, Pankhabari, Panighatta, Naksalbari, Baghdogra, Gayaganga and Siliguri.

"Supervision is carried out by one Engineering Supervisor, Telegraphs, posted in Darjiling with two Sub-Inspectors and 5 linemen who maintain the telegraph lines and apparatus and instal telephone lines and cables."

There are at present two Departmental Telegraph Offices in the district located at Darjiling and Siliguri. Besides the usual complements of clerical and inferior staff, they employed in 1967 the following technical personnel:²

	Siliguri D.T.O.	Darjiling D.T.O.
Superintendent	1	nil
Telegraph Masters	3	2
Telegraph Supervisors	2	nil
Telegraphists	35	11
Mechanics	18	nil
Telegraph Peons	8	6

1 A. J. Dash—*op. cit.*, pp. 199-200.

2 Source : Post Master General, Calcutta.

The work-load of the Darjiling Postal Division will be evident from the following table¹ giving the average number of various postal items handled per month in the year 1966-67.

Money Order issued	21,437
Money Orders paid	23,050
Registered letters booked	26,986
Registered parcels booked	3,728
Insured letters booked	3,217
Insured parcels booked	302

TELEPHONES

In 1966-67 the total number of radio licences issued was 5,033 ; the figure for those in force in the same year is not available.

In 1947 there were about 450 telephone subscribers in the district connected to the five exchanges at Darjiling, Kalimpong, Kurseong, Nagri Spur and Takdah. Dash wrote in the old Darjiling Gazetteer of 1947 : "All exchanges are interconnected through the Darjiling exchange from which trunk calls to the outer world pass. There are eight public call offices in the District. The Darjiling Telephone District is in the Saidpur subdivision of the Calcutta East Division of the Bengal and Assam Circle. The Darjiling area contains the following exchanges under the Engineering Supervisor, Telephones, Darjiling, viz., Darjiling, Kalimpong, Kurseong, Nagri Spur and Takdah :—

Darjiling Exchange—300 Lines Central Battery System. Direct working connections 274 including one private branch exchange—Extensions—66. Public call offices—4. Toll Trunk Lines (to Kurseong, Kalimpong and Saidpur exchanges : the last exchange connects with rest of India)—3. Free Junction Lines (two to Nagri Spur, one to Takdah)—3... Kalimpong Exchange—50 line Rural Automatic Exchange. Direct working connections 47 including one private exchange. Extension—10 of which one is a public call office. Toll Trunk Line—1 (to Darjiling)....

Kurseong Exchange—50 lines Rural Automatic Exchange. Direct working connections 50 one of which is a public call office. Extensions—6. Toll Trunk Line (to Darjiling)—1....

Nagri Spur Exchange—50 Line Magneto Exchange. Direct working connections 21. Free Junction Lines—2 (to Darjiling)....

¹ Source : Superintendent of Post Offices, Darjiling Division.

Takdah Exchange—10 Line Rural Automatic Exchange. Direct working connections 9, one of which is a public call office. Free Junction Line (to Darjiling)—¹.

In 1967 the number of direct working connexions increased to 1,501 and that of extensions to 337. Though this represents a 400% increase, there was still much idle capacity in all the exchanges which had meanwhile increased to 11. The following table gives the location, capacity, number of direct working connexions and extensions of these exchanges.²

TELEPHONE EXCHANGES IN DARJILING DISTRICT : 1967

Name of Exchange	Capacity	No. of direct working connexions	No. of extensions
Darjiling	720	660	114
Kurseong	300	185	36
Nagri Spur	100	53	21
Sukhiapokhri	100	56	—
Takdah (Auto)	50	36	6
Sonada (Auto)	50	41	2
Bijanbari (Auto)	100	75	2
Siliguri	1,200	1,141	103
Baghdogra	100	49	12
Kalimpong	300	269	38
Rangpo	50	34	3
Total	3,070	2,599	337

The number of telephone exchanges increased by two in 1970.

The All India Radio has two broadcasting stations in the district—the one at Kurseong originates independent programmes for catering to the needs of the hill people in particular while the other at Siliguri mainly relays broadcasts from Calcutta. There are two wireless stations at Darjiling and Siliguri which are run by the Posts & Telegraphs Department.

Radio & Wireless Stations

An account of the organizations of employers and employees in the field of transport and communication has been included in the comprehensive list of such bodies given in an earlier Chapter.

Organizations of employers & employees

1 A. J. Dash—*op. cit.*, p. 200.

2 Source : Postmaster-General, Calcutta.

APPENDIX I

HIKING FROM DARJILING TO KALIMPONG VIA PASHOK ROAD

Stages	Distance between stage (in miles)	Accommodation in bungalows	
		Rooms	Bed
Lopchu ¹ (via Ghum&Rangirum ²)	14½	2	5
Pashok ³	4¼	4	6
Tista Bridge	3¾	3	3
Kalimpong (by bridle path)	7	6	8
Darjiling to Kalimpong via Rangit Road			
Badamtam	7	2	5
Tista Bridge(along Rangit river)	18	3	3
Kalimpong	7	6	8
Darjiling to Rieng (Rayeng)			
Rangirum	6½	2	5
Riang	17	4	4
Siliguri to Tista Bridge			
Sivok ..	12½	(No bungalow)	
Kalijhora ..	5	3	4
Birrik ⁴ ..	4½	3	4
Riang (Rayeng)	3	4	4
Tista Bridge ..	7	3	3
Kalimpong to Plains			
Rissum ..	12	4	4
Daling Fort ..	12	(No bungalow)	
Dam Dim (in Duars)	12	(No bungalow)	
Thence Jalpaiguri or Sivok via Bagrakot			
Nepal Frontier and Back			
Jorpokhri ⁵ (from Ghum)	12½	3	7
Tonglu ⁶ ..	10	3	7
Sandakphu ⁷ ..	14	3	6
Phalut ⁸ (via Chiabhanjan)	12	3	7
Dentam ⁹ ..	17	3	4
Pamionchi ..	10	3	4

- 1 From the verandah of the Lopchu bungalow one of the grandest views of the snowy range is obtainable.
- 2 At Rangirum the original Botanic Carden was laid out.
- 3 'View Point', which is three-fourths of a mile from Pashok, commands a magnificent view of the junction of the Tista and Rangit rivers.
- 4 Dozy described the Birrik bungalow as 'one of the best, if not the best in Bengal.' It is called the 'Honeymoon House.'
- 5 From Horepokhri bungalow the frontier fort of Elam can be seen distinctly.
- 6 From the Tonglu bungalow the whole of Kanchenjanga group is seen in a setting hardly to be matched elsewhere.
- 7 From the Sandakphu bungalow the Everest and many peaks rising above 26,000 feet can be seen.
- 8 600 feet above Phalut bungalow is a lake which admits skating in winter months.
- 9 Dentam is the main pass from the eastern valleys of Nepal into Sikkim.

APPENDIX I (contd.)

HIKING FROM DARJILING TO KALIMPONG VIA PASHOK ROAD

Stages	Distance between stage (in miles)	Accommodation in bungalows	
		Rooms	Beds
Rinchinpong	10	3	3
Chakung	11	3	4
Darjiling, or	20	—	—
Kewsing	10	3	4
Temi	10	3	4
Namchi	10	3	4
Badamtam	10	2	5
Darjiling	7	0	0
Darjiling to Gangtok and Back			
Badamtam	7	2	5
Namchi	10	3	4
Temi	10	3	4
Song	11	3	4
Shamdong	4	2	4
Gangtok	12	5	4
Pakyong	10	2	4
Sankokhola	10	3	4
Rangpo	10	4	4
Melli, and back to	10	2	4
Darjiling via Tista Bridge	—	—	—
Gangtok to Natu La			
Karponang	10	2	4
Chhanggu (Tsomga)	10	2	4
Nathu pass (Natu La)	8	—	—
Gangtok to Lachen pass			
Dikchu	13	2	4
Singhik	11	2	4
Tong	9	2	4
Chunthang	5	2	4
Yugang	9	—	—
Latong	10	2	4
Lachen	12	2	4
Thenggu	13	2	4
Kalimpong to Gangtok			
Tista Bridge	7	3	3
Rangpo	14½	4	4
Shamdong	12	2	4
Gangtok	12	3	4
Kalimpong to Jelap pass			
Pedong	12	6	4
Aritar	8	3	4
Rangli	4	3	4
Sendochen	8	3	4
Lunghu	8	—	—
Nathang	7	3	4
Kupu	5	2	2
Jelap Pass	4	—	—

APPENDIX II

IMPORTANT HOTELS IN DARJILING TOWN : 1969

Name & Address	Telephone No. (Dar- jiling)	Accommodation	Charges per day (Rs.)
European Style Hotels			
Oberoi Mt. Everest Hotel ; Gandhi Road, Darjiling	90	Single rooms 36 2-bedded „ 26 Suites „ 16	70 to 75 115 to 120 150 to 160
Windamere Hotel, Observatory Hill, Darjiling	221 397	Single rooms 6 2-bedded „ 22	38 to 55 70 to 100
Central Hotel; Robertson Road, Darjiling	167 33	Single rooms 11 2-bedded „ 15	31 60 to 64
Alice Villa Hotel ; H.D. Lama Road, Darjiling		2-bedded rooms 3 381 3-bedded „ 4 4-bedded „ 3	60 to 75 85 to 95 100
New Elgin Hotel; H.D. Lama Road, Darjiling	182 588	Single rooms 7 2-bedded „ 5	30 to 35 per head
Swiss Hotel; R.K. Kuseri Road, Darjiling	265	2-bedded rooms 6 3-bedded „ 6	30 to 80 according to accommodation
Everest Luxury Hotel; Gandhi Road, Darjiling	252	2-bedded rooms 5 3-bedded „ 3	24 16 to 20 (without food)
Indian Style Hotels			
Central Boarding; 3, N.C. Goenka Road, Darjiling		2-bedded rooms 14 80 3-bedded „ 2 4-bedded „ 8	12 to 18
Woodland; Mall Road East, Darjiling		2-bedded rooms 3 696 3-bedded „ 3 4-bedded „ 2	22 to 25 (vegetarian)
Dilkhusa Hotel ; S. M. Das Road, Darjiling		Single rooms 1 379 2-bedded „ 2 3-bedded „ 2	5 per room 8 per „ 15 per „ (without food)
Hindu Boarding ; Laden La Road, Darjiling		2-bedded rooms 2 260 3-bedded „ 2 4-bedded „ 2	12 per day with board

APPENDIX II (contd.)

IMPORTANT HOTELS IN DARJILING TOWN : 1969

Name & Address	Telephone No. (Dar-jiling)	Accommodation	Charges per day (Rs.)
Radha Hotel & Restaurant ; Chowrastha, Darjiling	467	No. of rooms 12	35 to 45
Snow View Hotel; Kaghora Hill Cart Road, Darjiling (2 branches)	40	Single rooms 6 2-bedded „ 41 Party „ 3	11.50 to 20 per head according to room
Lowis Jubilee Sanatorium ; Darjiling	127	Single rooms 31 2-bedded „ 20 3-bedded „ 6	10.50 to 22.50 according to class
Himalayan Glory Hotel; Gandhi Road, Darjiling		No. of rooms 18	16 to 22
Tiger Hill Hotel; Judge Bazar, Darjiling		2-bedded rooms 12	10 to 15
Wayside Inn ; Cart Road, Darjiling	679	Single rooms 4 2-bedded „ 2 3-bedded „ 2	9.50 to 11 9.50 to 11
Summer Boon, Clark Road, Darjiling	518	No. of rooms 7	20
Kanchanjungha Hotel; Cart Road, Darjiling	460	Single rooms 3 2-bedded „ 3 3-bedded „ 3 4-bedded „ 7	18 35 60 85
Indian Hotel ; S. M. Das Road Darjiling	272	2-bedded rooms 4 3-bedded „ 2 4-bedded „ 2 6-bedded „ 2	12

APPENDIX III

LIST OF POST OFFICES IN DARJILING DIVISION AS ON
1 DECEMBER 1967

Name of Post Office	Category	Location (Police Station)
Darjiling District		
1. Darjiling Head Office	C.S.O.	Darjiling Sadar
2. Airport Baghdogra	"	Phansidewa
3. Baghdogra	"	Phansidewa
4. Belgachhi	"	Naksalbari
5. Bijanbari	"	Pulbazar
6. Dauhill	"	Kurseong
7. Ektiashal	"	Siliguri
8. Ghum	"	Jorbanglo
9. Jalapahar	"	Darjiling Sadar
10. Kalimpong	"	Kalimpong
11. Kamalabagan	"	Phansidewa
12. Kharibari	"	Kharibari
13. Kurseong	"	Kurseong
14. Leborg	"	Darjiling Sadar
15. Lopchu	"	Rangli Rangliot
16. Matigara	"	Siliguri
17. Mirik	"	Mirik
18. Nagarishpur	"	Mirik
19. Naksalbari	"	Naksalbari
20. North Bengal University	"	Siliguri
21. Northpoint	"	Darjiling Sadar
22. Pankhabari	"	Kurseong
23. Pedong	"	Kalimpong
24. Rangli Rangliot	"	Rangli Rangliot
25. Siliguri New Market	"	Siliguri
26. Sonada	"	Jorbanglo
27. Sukhiapokhri	"	Sukhiapokhri
28. Takdah	"	Rangli Rangliot
29. Tindharia	"	Kurseong
30. Tista bridge	"	Kalimpong
31. Tung	"	Kurseong
32. Bhaktinagar	N.C.S.O.	—
33. Darjiling Bazar	"	Darjiling Sadar
34. Darjiling Court	"	Darjiling Sadar
35. Deshbandhupara	"	Siliguri
36. Mangpu	"	Rangli Rangliot
37. Phuguri	"	Mirik
38. Siliguri Bazar	"	Siliguri
39. Siliguri Road	"	Siliguri
40. Siliguri Town	"	Siliguri
41. St. Mary's Hill	"	Kurseong
42. Subhaspally	"	Siliguri
43. Siliguri	C.S.O.	Siliguri

APPENDIX III (contd.)

LIST OF POST OFFICES IN DARJILING DIVISION AS ON
1 DECEMBER 1967

	Name of Post Office	Location	Category (Police Station)
44.	Sahabad	E.D.S.O	Kharibari
45.	Meribong	E.D.B.O	Pulbazar
46.	Tarbandha	"	Phansidewa
47.	Jhepi	"	Pulbazar
48.	Lodhomahat	"	Pulbazar
49.	Pulbazar	"	Pulbazar
50.	Rimbick Bazar	"	Pulbazar
51.	Dhooteriah	"	Jorbanglo
52.	Rangbul Halt	"	Jorbanglo
53.	Algarah	"	Kalimpong
54.	Echhey	"	Kalimpong
55.	Jutdabbling	"	Kalimpong
56.	Labha	"	Kalimpong
57.	Sinji	"	Kalimpong
58.	Thanjora bagan	"	Kharibari
59.	Singritam	"	Rangli Rangliot
60.	Roang	"	Rangli Rangliot
61.	Scoreni Bazar	"	Mirik
62.	Singla	"	Darjiling Sadar
63.	Takvar	"	Darjiling Sadar
64.	Kagar Bazar	"	Kalimpong
65.	Badorajote	"	Phansidewa
66.	Chathat	E.D.B.O	Kharibari
67.	Chitalghata	"	Kharibari
68.	Debagram	"	Siliguri
69.	Fulbarihat	"	Naksalbari
70.	Gulena	"	Siliguri
71.	Hathighisa	"	Naksalbari
72.	Kalachandgarh	"	Phansidewa
73.	Kalijhora	"	Rangli Rangliot
74.	Madati	"	Phansidewa
75.	New Chumpta	"	Siliguri
76.	Phansidewa	"	Phansidewa
77.	Rangapani	"	Phansidewa
78.	Simulbari	"	Siliguri
79.	Sukna	"	Siliguri
80.	Moondakoti	"	Mirik
81.	Nalichaur	"	Jorbanglo
82.	Ringtong	"	Jorbanglo
83.	Batasi	"	Sukhiapokhri
84.	Manibhanjan	"	Sukhiapokhri
85.	Pokhribong	"	Mirik
86.	Gayabari	"	Kurseong
87.	Mahanadi	"	Kurseong
88.	Pashok	"	Rangli Rangliot
89.	Takling	"	Rangli Rangliot
90.	Bagora	"	Kurseong
91.	Sakyong	"	Kalimpong



APPENDIX III (contd.)

LIST OF POST OFFICES IN DARJILING DIVISION AS ON
1 DECEMBER 1967

Name of Post Office		Location	Category (Police Station)
Sikkim State			
1.	Gangtok	C.S.O.	Gangtok
2.	Gangtok Bazar	"	Gangtok
3.	Gayzing	"	Gayzing
4.	Magan	"	Magan
5.	Namchi	"	Namchi
6.	Naya Bazar	"	Naya Bazar
7.	Rangpo	"	Rangpo
8.	Rhenok	"	Rhenok
9.	Singtam	"	Singtam
10.	Dhajay	E.D.B.O.	Gangtok
11.	Dikchu	"	Gangtok
12.	Kupup	"	Gangtok
13.	Pakhyong	"	Gangtok
14.	Ranipool	"	Gangtok
15.	Runtek	"	Gangtok
16.	Samdong	"	Gangtok
17.	Sherathang	"	Gangtok
18.	Dentam	"	Gayzing
19.	Kalukbazar	"	Gayzing
20.	Chungthang	"	Magan
21.	Lachen	"	Magan
22.	Lachung	"	Magan
23.	Lower Janggu	"	Magan
24.	Tengbong	"	Magan
25.	Sombary Bazar	"	Naya Bazar
26.	Soreng Bazar	"	Naya Bazar
27.	Duga	"	Rangpo
28.	Namthang	"	Rangpo
29.	Parkha	"	Rhenok
30.	Rangli Bazar	"	Rhenok
31.	Barmiak	"	Singtam
32.	Damthang	"	Singtam
33.	Kewzing	"	Singtam
34.	Khamdong	"	Singtam
35.	Makha	"	Singtam
36.	Sinek	"	Singtam
37.	Song	"	Singtam
38.	Temi Tarku	"	Singtam
39.	Yangangbazar	"	Singtam
40.	Majitar	"	Naya Bazar
41.	Mallibazar	"	Rangpo

N.B. The spellings of the place-names are as furnished by the Superintendent of Post Offices, Darjiling Division. 'C.S.O.' means a Combined Sub-Office ; 'N.C.S.O.' a Non-Combined Sub-Office ; 'E.D.S.O.' an Extra-Departmental Sub-Office and 'E.D.B.O.' an Extra-Departmental Branch Office.

CHAPTER VII

ECONOMIC TRENDS AND MISCELLANEOUS OCCUPATIONS

The Census of 1961 divides the general population of the district into two broad categories of workers and non-workers, of which the former comprises people adopting the following nine types of livelihood; : Livelihood pattern

(I) Cultivation ; (II) Agricultural labour ; (III) Mining, quarrying, forestry, fishing, hunting and activities connected with livestock, plantations, orchards and allied spheres ; (IV) Household industries ; (V) Manufacturing other than household industries ; (VI) Construction ; (VII) Trade and commerce ; (VIII) Transport, storage and communications ; and (IX) Other services.

The distribution of the total population of the district, according to the above classification, is given in the following table :

(A) COMPOSITION OF LIVELIHOOD CLASSES IN DARJILING DISTRICT

Category	Description	Total No. of Persons	Males	Females
(A) I	Workers in Cultivation	99,703	57,825	39,878
II	Workers in Agricultural labour	7,807	5,361	2,446
III	Workers in Mining, Quarrying etc.	82,236	46,257	35,979
IV	Workers in Household Industries	4,501	3,671	830
V	Workers in Manufacturing other than Household Industries	4,805	4,729	76
VI	Workers in Construction	3,160	2,941	219
VII	Workers in Trade and Commerce	15,592	14,331	1,261
VIII	Workers in Transport, Storage and Communications	7,756	7,690	66
IX	Workers in other Services	40,545	34,164	6,381
I-IX	All Workers	2,66,105	1,78,969	87,126
(B)	Non-workers	3,58,535	1,56,067	2,02,468
(C)	Persons surveyed [(A) + (B)]	6,24,640	3,35,036	2,89,604

The statement below indicates the percentages of workers and non-workers belonging to different livelihood classes, specifying their proportions under rural and urban categories.

	Percentage of Workers & Non-workers										
	Total	Livelihood Classes									Non-workers (%)
		I	II	III	IV	V	VI	VII	VIII	IX	
District Total	42.6	15.96	1.25	13.16	0.72	0.77	0.51	2.50	1.24	6.49	57.4
Rural Total	45.0	20.63	1.50	17.06	0.46	0.06	0.39	1.12	0.35	3.43	55.0
Urban Total	34.65	0.46	0.45	0.22	1.59	3.13	0.87	7.06	4.20	16.67	65.35

The statement below gives the percentages of workers under different livelihood classes to the total working force in the district.

Category No.	I	II	III	IV	V	VI	VII	VIII	IX
	37.47	2.94	30.90	1.70	1.81	1.19	5.86	2.92	15.21

Of the total number of workers in the district in 1961, those engaged in the primary sector of industry comprised 70.85 per cent, those in the secondary sector 5.1 per cent and those in the tertiary sector 23.98 per cent. The corresponding figures for the State of West Bengal were 57.4, 18.4 and 24.3 per cent respectively.

The proportion of workers in the district has considerably declined since 1901 when it was 62.01 per cent of the total population. In 1931 it came down to 38.45 per cent and although there was a slight rise over the last three decades pushing up the figure to 42.6 per cent in 1961, the overall proportion of non-workers has swelled over the last 60 years from 37.99 per cent in 1901 to 57.4 per cent in 1961. The fall in the number of workers and a corresponding rise in that of non-workers is an index of increased unemployment and under-employment.

The non-agricultural workers of the district are classified according to their occupations in the following table which brings out the relative importance of the various callings.

Occupational Categories	Total	Males	Females
Professional, technical and related workers	5,273	4,211	1,062
Administrative, executive and managerial workers	2,023	1,976	47

ECONOMIC TRENDS AND MISCELLANEOUS OCCUPATIONS 345

Occupational Categories	Total	Males	Females
Clerical and related workers	6,319	6,045	274
Sales workers	15,329	14,061	1,268
Farmers, fishermen, hunters, loggers and related workers	76,789	40,741	36,048
Miners, quarrymen and related workers	147	146	1
Workers in transport and communication occupations	5,893	5,772	121
Craftsmen, production process workers and labourers not classified elsewhere	29,229	24,985	4,244
Service, sport and recreation workers	16,849	15,132	1,717
Workers not classified by occupation	744	714	30

Numerical details of the various categories of non-working population of the district are given in the following table.

Categories of non-working population	In thousands					
	District total		Rural total		Urban total	
	Males	Females	Males	Females	Males	Females
Total	156.0	202.5	117.0	147.0	39.0	55.5
Full-time students or children attending schools	47.4	21.8	29.9	11.6	17.5	10.2
Persons in household duties	—	56.0	—	36.2	—	19.8
Dependents, infants & children not attending school and persons permanently disabled	98.0	116.2	80.0	94.2	18.0	22.0
Retired persons not re-employed, rentiers, persons living on agricultural royalty, rent, dividend or other persons of independent means	1.8	.8	1.1	.5	.7	.3
Beggars, vagrants, independent women and others of up-specified sources of income	.7	1.2	.3	.3	.4	.9

Categories of non-working population	In thousands					
	District total		Rural total		Urban total	
	Males	Females	Males	Females	Males	Females
Inmates of penal, mental and charitable institutions	.6	.3	.2	.2	.4	.1
Persons seeking employment for the first time	5.6	4.6	4.3	3.3	1.3	1.3
Persons employed before but now out of employment and seeking work	1.9	1.6	1.2	.7	.7	.9

General level of prices

O'Malley reported in 1907 that "the price of food-grains has risen enormously during the last thirty years. In 1871 the ordinary price of cheap rice eaten by coolies was Re. 1-4 a maund in the Terai and Rs. 2-4 a maund in the hills, while the other staple food of the people, Indian corn, was sold at Re. 1-8 a maund. The price of these articles of food is now 50 per cent as great."¹ The same trend was also noticed by Dash as will be evident from the following table showing price movement of coarse rice during the 70-year period from 1871 to 1940 compiled from his Darjiling Gazetteer published in 1947.²

Coarse rice

(Prices in Rupees & paise per maund)

Year	Rs.	Year	Rs.	Year	Rs.	Year	Rs.
1871	2.25	1915	7.50	1927	9.50	1934	5.00
1903	3.37	1916	7.00	1928	9.00	1935	5.00
1907	6.00	1918	5.00	1929	8.00	1936	5.00
1910	3.75	1919	8.00	1930	6.69	1937	5.00
1912	5.00	1921	7.75	1931	4.50	1938	5.00
1913	6.69	1924	5.69	1932	5.00	1939	5.00
1914	5.69	1926	9.00	1933	5.00	1940	5.50

¹ L.S.S.O'Malley—*Bengal District Gazetteers : Darjeeling*. Calcutta, 1907, p. 112.

² A.J. Dash—*Bengal District Gazetteers : Darjeeling*. Calcutta, 1947, p. 176.

Dash further wrote : "The price of rice in Kurseong has hardly differed from the Darjiling price during the last 20 years. In Kalimpong the price has been as a rule slightly lower. At Siliguri the price has from time to time exceeded that at Darjiling but in more recent times (for instance in 1938-40) it was 25 per cent lower. From 1942 began a violent upward movement of prices corresponding to the famine prices which developed in the rest of Bengal in 1943. Tea gardens succeeded in procuring rice for their labour forces often at very inflated prices : locally grown supplies of maize and other grains with the rice that could be imported were sufficient to prevent the appearance of famine or scarcity conditions. Prices however soared and at times it was extremely difficult to buy rice or salt in the open market at any price. The price of rice reached its peak of Rs. 40 per maund in 1943 ; it gradually declined and under Government control it was steadied and came down to Rs. 13-12 in 1945."¹

This stability was, however, short-lived. From 1946 rice prices began to move up and reached the Rs. 33.50 per maund mark for the coarse variety in the wholesale markets of Siliguri in 1951 but gradually declined to Rs. 14.31 a maund in May 1955. There was a spurt in prices soon afterwards and the average price per maund of the same variety progressively rose to Rs. 19.67 in 1956, Rs. 22.44 in 1957 and Rs. 26.14 in 1958 but receded to Rs. 23.19 in 1959, Rs. 21.75 in 1960, Rs. 19.56 in 1961 and Rs. 19.12 in 1962. This downward trend was reversed again by a spiralling of prices since 1963, when in October of the same year the price per quintal² of coarse rice soared to Rs. 85.83 (the average for the year being Rs. 71.88) necessitating the intervention of the State Government which controlled the prices of rice and paddy from 1964. Statutory rationing was introduced in the urban areas of Siliguri with effect from 2 January 1966 only to be withdrawn from 1 January 1968. The maximum retail price per kilogram of rice valid for April 1968 was Rs. 1.70. The following table indicates the movement of prices of important agricultural produce during the agronomically significant months of January and August of 1956, 1961 and 1966. These price movements were not very significant in 1973 and 1974 in view of the galloping inflation.

¹ *loc. cit.*

² One quintal (-100 kgs.) is equivalent to 2.68 maunds and one maund is equivalent to 37.52 kgs.

**WHOLESALE PRICES OF SELECTED AGRICULTURAL PRODUCE IN
IMPORTANT MARKETS OF DARJILING DISTRICT¹**

Commo- dity	Market	Unit	Prices in Rupees					
			1956		1961		1966	
			Jany.	Aug.	Jany.	Aug.	Jany.	Aug.
Rice (fine)	Siliguri	Quin- tal	N.A.	70.31	58.94	62.96	*	*
Rice (Medium)	„	„	N.A.	54.25	54.41	58.94	*	*
Rice (Coarse)	„	„	N.A.	51.95	51.73	53.58	*	*
Paddy (fine)	„	„	30.81	40.19	31.50	34.39	*	*
Paddy (Medium)	„	„	23.58	34.81	31.81	39.52	*	*
Potato	Darjiling	„	56.89	61.62	36.49	52.91	65.80	64.00
Jute (loose average grade)	Siliguri	„	69.33	66.96	142.66	103.81	136.25	165.51
Maize	Kalim- pong	„	N.A.	38.19	39.17	40.86	91.07	96.48
Carda- mom	„ Sonada	„	338.44 346.94	N.A. 383.08	215.00 219.00	181.50 186.86	556.86 550.06	1,098.10 1,070.00
Ginger	Kalim- pong	„	N.A.	34.14	26.79	33.81	55.12	70.00
	Darjiling	„	32.14	34.83	34.16	30.14	62.80	72.00
Cabbage	„	„	44.88	41.51	44.20	40.19	51.80	57.00
Orange	Tista	1,000	28.00	N.A.	28.00	N.A.	45.00	N.A.
Cauliflower	Darjiling	100	37.50	N.A.	34.00	N.A.	83.08	N.A.

wages

The minimum wages of agricultural labourers in Darjiling district were fixed by the State Government for the first time in December 1953 under the Minimum Wages Act, 1948. The

¹Source : Directorate of Agricultural Marketing, West Bengal.

*Prices controlled by Government.

N.A.—‘not available’.

daily rates prescribed for those engaged in agriculture other than certain specified operations are given below :

	Siliguri subdivision	Darjiling (Sadar), Kurseong and Kalimpong subdivisions
Male	1.75	1.50
Female	1.50	1.37
Child	1.00	0.87

Those employed in the specified agricultural operations, namely ploughing, harvesting and retting of jute in Siliguri subdivision and ploughing and spading in the Darjiling (Sadar), Kalimpong and Kurseong subdivisions are entitled to daily wages according to the following schedule :

	Siliguri subdivision	Darjiling (Sadar), Kalimpong and Kurseong subdivisions
Male	2.00	2.00
Female	1.75	1.87

A male adult labourer employed on long-term basis, if allowed free accommodation and two principal meals a day, is supposed to receive a minimum wage of Rs. 25 a month. Otherwise, he is to be paid for actual days of employment at the prescribed daily rates.

The average daily earnings of various categories of agricultural labourers during the period from 1955-6 to 1965-6 are given in the following table which will show that there has been no appreciable rise in the wage rates ; in fact, a slight fall is indicated in some cases.

Year	Normal daily working hours	Field labourers (per day)			Other Agricultural labourers (per day)			Herdsman (per ani- mal per month)		
		Man	Wo- man	Child	Man	Wo- man	Child	Man	Wo- man	Child
1955-6	8	1.94	1.66	1.19	2.25	1.93	2.22	1.94	1.84	1.06
1965-6	8	2.45	1.95	1.45	2.24	1.83	1.33	1.93	1.50	1.00

The present (1967-8) daily wages in the hills average Rs. 3 for a man, Rs. 2 for a woman and Re. 1.50 for a child, besides light tiffin, during the peak of the cultivating season, while the off-season wages fall by about 0.50 paise daily. In the plains, the daily

wage of a man varies between Rs. 2.50 and Rs. 3 without food and between Rs. 1.50 and Rs. 2 with food, according as the season is peak or dull. Women and children receive, on an average, 0.50 paise and Re. 1 respectively less than their male counterparts. Such of the workers as are employed on contract basis for 2 to 3 months, especially during the peak season, are known as *mashora* in the plains. Their monthly wage varies from Rs. 15 to Rs. 30 besides meals, depending upon age, experience etc. Attached workers, known as *chakar* in the plains, are also required to do household duties. Their annual wage varies from Rs. 200 to Rs. 300 besides meals and clothings, depending upon age and experience. Under the Rural Manpower Programme introduced in the district in 1963, the daily wage paid to a worker varies between Rs. 1.50 and Rs. 2.

Tea plantations

By far the great majority of the labouring population of the district is employed in its plantation industries. Writing about their wages O'Malley stated in 1907 : "The wages paid to the tea coolies...are considerably higher than such labour would obtain in many plains districts. The average rate is Rs. 6 a month for men, Rs. 4.50 for women and Rs. 3 for children, but in addition to the actual sum paid as wages, they receive substantial extras in the shape of free housing, fuel, medical attendance, etc."¹ Four decades later, Dash gave elaborate information on the wage pattern of different categories of tea plantation labour. He noted that the basic rates for the *haziri* system of wage payment prevailing then were 31 paise for men, 25 paise for women and 19 paise for children in the hills, while the corresponding rates in the Terai were 25 paise, 19 paise and 9 paise respectively.² "These basic rates," he said, "have been prevalent for a long time and are really task rates. They are split in some hill gardens so that part is paid as bonus for attendance 5 days a week. In other gardens there is a sliding scale of bonus for upwards of 14 days' attendance in the month.

"Cultivation or winter operations are often paid for on a bigha or piece rate system, in which the task for sickling, pruning, hoeing or deep-forking is so arranged that the basic *haziri* can be earned by 5 or 6 hours' work. Since 1939 this daily task has been reduced. In the plucking season there are two methods of payment, the piece rate and the bigha or task rate. Piece rates are 6 pies (3 paise) per seer of leaf plucked ; the task is so fixed that by doing it the worker gets the basic wage.

"Labour other than garden labour is usually paid at monthly rates, but there are however estates where payment is made weekly on a daily wage rate. Tea makers and factory labour receive

¹ L.S.O'Malley—*op. cit.*, p. 111.

² A.J. Dash—*op. cit.*, p. 119.

between Rs. 9 and Rs. 14 per month and daffadars, chaukidars and others from Rs. 12 to Rs. 16.

"Dearness allowances are paid on almost every garden at rates which are usually Rs. 2 to Rs. 3-8 (Rs. 3.50) per month for factory labour, one anna (3 paise) per day for adult garden labourers and half an anna (6 paise) for children.

"Average and maximum earnings of garden labour have increased appreciably between 1939 and 1944. Averages are lower in the hills than in the Terai and for the whole District they are approximately Rs. 12 for men, Rs. 10 for women and Rs. 5 for children.

"...Certain gardens still follow the old system of paying labour through sardars. While this method makes payment much simpler for the management, it is unsatisfactory as sardars levy a commission (up to 3 pies per rupee) on payments in addition to that allowed by the management. Sardars are nearly everywhere made responsible for discipline and attendance, getting one pice (2 paise) per diem for every worker turning up for the work. In the hills there are a few labourers (*niz*) who are not under any Sardar.

"In addition to granting dearness allowances, all gardens during the war sold rice to their labour at concession prices. Many gardens gave similar concessions in respect of other commodities, for instance they sold cheap cloth or gave cash in lieu."¹ Further, the labourers were granted at that time (1947) extra facilities in the shape of free housing (not unoften together with rent-free land for raising food for themselves), fuel, medical attendance etc.² Free issues of blankets and umbrellas were not uncommon and many gardens paid the cost of entertainments on the occasion of religious festivals.

The minimum wages of labourers employed in this industry were fixed by the State Government for the first time in September 1951 under the provisions of the Minimum Wages Act, 1948 and

¹*op. cit.* pp. 119-20.

²*op. cit.* p. 121.

were as below in 1951 for different categories of workers in the Terai and the hill areas of the district.

	(Figures in Rupees)					
	Male		Female		Child	
	Field	Factory	Field	Factory	Field	Factory
Terai						
Basic wage	0.75	0.75	0.62	0.62	0.37	0.37
Dearness Allowance	0.44	0.44	0.44	0.44	0.25	0.25
Total	1.19	1.19	1.06	1.06	0.62	0.62
Hill areas						
Basic wage	0.50	0.56	0.44	0.50	0.25	0.31
Dearness Allowance	0.44	0.44	0.44	0.44	0.25	0.25
Total	0.94	1.00	0.88	0.94	0.50	0.56

The total emoluments of daily-rated workers underwent a significant change on final revision of the wages in August 1959, as will be evident from the following table.

	(Figures in Rupees)					
	Male		Female		Child	
	Field	Factory	Field	Factory	Field	Factory
Terai						
Gardens of 500 acres and above						
Basic wage	1.24	1.24	1.12	1.12	0.68	0.68
Dearness Allowance	0.60	0.60	0.60	0.60	0.32	0.32
Total	1.84	1.84	1.72	1.72	1.00	1.00
Hill areas						
Basic wage	1.05	1.10	1.00	1.05	0.50	0.55
Dearness Allowance	0.40	0.40	0.40	0.40	0.30	0.30
Total	1.45	1.50	1.40	1.45	0.80	0.85

In gardens occupying less than 500 acres in the Terai, the total emoluments of daily-rated male and female workers employed in the field were fixed at Rs. 1.81 and Rs. 1.69 respectively.

The Central Wage Board on Tea Plantation Industries set up by the Government of India in December 1960 made its final recommendations in 1966 under which the basic wages and dearness allowances (linked with the All India Consumer Price Index Number in a prescribed ratio) stood at the following rates in respect of daily-rated tea labourers employed in the field during 1967-8.

(Figures in Rupees)			
Terai	Male	Female	Child
Basic wage	2.07	1.90	1.13
Dearness Allowance	0.056	0.056	0.028
Hill areas			
Basic wage	1.75	1.64	0.95
Dearness Allowance	0.056	0.056	0.028

These rates, however, retained the existing difference between the wages of field and factory workers. The labourers receive besides substantial benefits in the shape of supply of cereals at subsidized rates, which are Rs. 40.19 and Rs. 47.00 a quintal in the Terai and the hill areas of the district respectively.

In the Cinchona plantations of the district, the wages of workers obtaining in 1968 were Rs. 3.54 for a male, Rs. 2.69 for a female and Rs. 2.01 for a *chokra* (employable child) per day.¹

Cinchona

The spiralling of prices since 1956 resulted in a progressive rise in the general Cost of Living Index for all expenditure groups, as will be evident from the following table which will also establish that the Cost of Living Index followed very closely the index for food articles, the latter being mainly responsible for raising the former because of its greater importance in the domestic sphere.

Cost of living index

COST OF LIVING INDEX NUMBER²

(Base : November 1950 = 100)

Monthly averages

EXPENDITURE LEVEL

Centre : Darjiling

Items of consumption	Year	Rs. 1-100	Rs. 101-200	Rs. 201-350	Rs. 351-700	Rs. 701 & above
Food	1956	115.6	116.2	113.5	112.1	113.1
	1961	123.2	123.9	122.2	121.6	122.6
	1965	162.3	163.1	158.3	155.7	158.3
All combined	1956	110.4	110.4	107.1	104.1	104.0
	1961	118.7	118.5	116.6	112.9	114.3
	1965	153.4	152.8	145.5	136.7	138.2

¹ Source : State Statistical Bureau, Government of West Bengal.

² Source : Directorate of Cinchona, Government of West Bengal, Calcutta.

Fam budgets

It is not possible to give an idea of the family budgets of the well-to-do, the middle and the lower income groups throughout the district as sufficient information is lacking. But the following tables, prepared by the State Statistical Bureau, West Bengal, and giving monthly expenditure figures on various counts at Darjiling will indicate the trend of family budgets of different income groups during the period 1950-51 to 1960-61.

PERCENTAGE EXPENDITURE ON DIFFERENT GROUPS
OF ITEMS OF CONSUMPTION AT DIFFERENT
EXPENDITURE LEVELS

Centre : Darjiling

Groups of items of consumption	Average of years	Monthly expenditure levels (in Rs.)				
		1-100	101-200	201-350	351-700	701 & above
Food	1950-1	62.92	61.86	52.39	38.52	38.96
	1955-6	65.43	61.30	50.66	47.23	39.12
	1960-1	65.84	61.28	52.96	49.43	43.73
Clothing	1950-1	7.79	7.99	7.51	7.08	4.77
	1955-6	6.39	7.26	7.96	7.91	7.80
	1960-1	9.09	10.05	8.62	9.65	8.73
Fuel & Light	1950-1	9.83	8.80	7.80	5.82	3.73
	1955-6	10.24	9.64	8.40	4.62	3.70
	1960-1	9.63	7.80	7.32	5.82	6.47
Housing	1950-1	5.20	4.91	5.16	9.11	5.70
	1955-6	8.20	7.12	9.68	7.75	7.30
	1960-1	6.50	7.34	11.18	8.55	7.15
Miscellaneous	1950-1	14.26	16.44	27.14	39.47	46.84
	1955-6	9.74	14.68	23.28	32.49	42.08
	1960-1	8.89	13.53	19.92	26.55	33.92
Total	1950-1	100.00	100.00	100.00	100.00	100.00
	1955-6	100.00	100.00	100.00	100.00	100.00
	1960-1	100.00	100.00	100.00	100.00	100.00

Occupational shifts

Occupational shifts experienced in the district over two generations between 1901 and 1961 are shown in the following table which gives the intrinsic numbers of workers according to different categories as also their percentages (shown within brackets) to the total number of workers for the years 1901, 1931 and 1961.¹

¹ The table is based on the formula prescribed in Appendix VII of the *Census 1961, West Bengal District Census Handbook, Calcutta*.

ECONOMIC TRENDS AND MISCELLANEOUS OCCUPATIONS 355

Category of workers	1901	1931	1961
Total workers	1,54,489 (100.00)	1,22,904 (100.00)	2,66,105 (100.00)
Cultivators	56,811 (36.77)	23,346 (18.99)	99,703 (37.47)
Agricultural Labourers	691 (0.45)	9,069 (7.38)	7,807 (2.94)
Mining, Quarrying, Livestock, Forestry, Fishing, Hunting, Plantations, Orchards etc.	71,555 (46.32)	67,568 (54.98)	82,236 (30.90)
Manufacturing including Household Industry	4,925 (3.19)	3,838 (3.12)	9,306 (3.51)
Construction	3,729 (2.41)	550 (0.45)	3,160 (1.19)
Trade and Commerce	7,033 (4.55)	6,781 (5.52)	15,592 (5.86)
Transport, Storage and Communications	2,627 (1.70)	2,423 (1.97)	7,756 (2.92)
Other services	7,118 (4.61)	9,329 (7.59)	40,545 (15.21)

A Sub-Regional Employment Exchange started functioning in Darjiling town in 1946 and exercised jurisdiction over the entire district till December 1957 when a District Employment Exchange with jurisdiction over Siliguri subdivision alone was opened at Siliguri. In addition, there is a University Employment Information and Guidance Bureau attached to the North Bengal University at Rajarammohanpur, 4 miles west of Siliguri, which started functioning in September 1965.

Employment
Exchange

The following table covering all the three Exchanges shows the figures of registrations, placements, vacancies notified, live register at the close of each year and monthly average number of employers using the Exchanges during 1967.

Sub-Regional Employment
Exchange : Darjiling Town

Year	No of regis- trations	No. of place- ments	Vacancies notified	Live Regis- ter at the end of December 1967	Monthly average No. of employers using E.Es.
1967	4,717	764	695	3,712	9.6

District Employment
Exchange : Siliguri

1967	10,595	951	1,105	5,199	14.7
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North Bengal University Employment
Information & Guidance Bureau :
Rajarammohanpur

1967	25	—	—	26	—
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The distribution of job-seekers in broad categories on the Live Registers of the three Exchanges at the end of December 1967 is shown in the following table.

Broad Category	Exchange at Darjiling Town	Exchange at Siliguri	Exchange at Rajaram- mohanpur
Industrial & Supervisory	—	42	—
Skilled & Semi-skilled	330	561	—
Clerical	632	1,031	—
Educational	15	11	—
Domestic	107	212	—
Unskilled	2,611	3,156	—
Others	17	186	26
Total	3,712	5,199	26

The Exchanges are experiencing shortage of trained nurses, stenographers and typists (fast and accurate), secondary school teachers, moulders (experienced), pharmacists (passed and experienced) and maintenance mechanics (experienced) while there is an excess of clerks, unskilled and inexperienced workers.

To relieve congestion in crowded occupations the Exchanges keep the registrants posted through group discussions on the salient features of the overall employment market and available training facilities and advise them to equip themselves for absorption in new callings. They also review the old cases from time to time to find out their suitability for absorption in occupations where employment opportunities are expanding.¹

According to the latest figures available from the Director of Public Instruction, West Bengal, there were, in 1963-4, 2,709 teachers in the district of whom 1,957 were men and 752 women—169 (including 27 women) being employed in colleges (general and professional) ; 2,337 (including 686 women) in Higher Secondary, High, Junior High, Senior Basic, Primary, Junior Basic and Nursery Schools ; 45 (including 6 women) in professional schools and 158 (including 33 women) in special educational institutions like Tols, Madrasas. etc. The teachers have their respective associations for safeguarding and promoting their interests.

Learned
professions

Teachers

According to the 1961 Census there were 311 doctors in the district of whom 283 were men and 28 women. Allopathic physicians and surgeons numbered 173 (including 27 women), *ayurvedic* physicians 55 and unclassified others 83. Of the 173 allopaths, as many as 126 (including 26 women) practised in urban areas and only 47 in the countryside. Similarly, out of the 55 *ayurvedic* physicians, 28 were in urban and 27 in rural areas. These figures attest to the concentration of physicians in the urban areas of the district.

Doctors

The 1961 Census also enumerated 264 engineers, architects and surveyors in the district of whom civil engineers including overseers numbered 113.

Engineers

According to the same source there were 54 lawyers in the district in 1961 who have their own associations for furthering their professional interests.

Lawyers

¹ Source : Directorate of National Employment Service, West Bengal.

Artists & writers The Census of 1961 counted 331 (including 38 women) artists, writers and related workers in the district of whom 287 (including 31 women) were in urban areas.

Domestic and personal services According to the Census of 1961 house-keepers, cooks, domestic servants and maids numbered 7,032 of whom 1,284 were women. Male domestic servants being scarce as most of them prefer to work as butlers, bearers and waiters, their female counterparts have taken to the field in fairly large numbers. While working part-time they receive wages varying from Rs. 15 to Rs. 20 per month without food. Full-time female servants' wages vary from Rs. 35 to Rs. 40 per month besides food. Cooks charge between Rs. 50 and Rs. 60 per month without food. All these various categories of domestic servants have no recognized association in the district.¹

Barbers During the Census of 1961, 413 barbers were enumerated in the district. In the second half of 1967 a hair-cut would cost 50 paise in rural and Re. 1 in urban areas, while for a shave the rate was 20 paise. The monthly wage of a barber working in a regular establishment ranged from Rs. 50 to Rs. 60 in Sadar subdivision and Rs. 70 to Rs. 80 in Kalimpong subdivision. They have no recognized association in the district.²

Tailors The Census of 1961 put the total number of tailors, cutters, furriers and related workers in the district at 1,909 of whom 253 were women. They are mostly to be found in the urban areas. The prevailing rate for making a cotton shirt is Rs. 2 to Rs. 3, a cotton suit Rs. 12 to Rs. 25, a woollen suit Rs. 35 to Rs. 45, a frock Rs. 3 to Rs. 4 and a lady's blouse Rs. 2 to Rs. 3. Their business is usually run on a partnership basis or under individual proprietorship. There is no recognized association of tailors in the district.³

Washermen In the 1961 Census 552 persons in the district were enumerated as launderers, cleaners, pressers etc. of whom 78 were women. A laundry shop usually charges 30 paise and an individual washerman 25 paise for washing each piece. They have no recognized association in the district.⁴

Carpenters, Masons etc. There were 1,852 (including 15 women) carpenters and allied workers in the district in 1961. The wage of a carpenter is usually Rs. 6. Bricklayers, plasterers, construction workers etc. numbered 1,366 (including 60 women) in 1961. The daily wage of a mason is Rs. 7, a mason-helper Rs. 5, a coolie Rs. 2.50 and a gardener Rs. 3.⁵

1 Source : Deputy Commissioner, Darjiling.

2 Source : Deputy Commissioner, Darjiling and Subdivisional Officer, Kalimpong.

3-5 Source : Deputy Commissioner, Darjiling.

The Community Development Programme was first launched in the district in July 1954 with the inauguration of the Darjiling-Pulbazar, Rangli-Rangliot and Jore Bungalow-Sukiapukhri Development Blocks. The programme now covers the entire district with 10 Blocks, the particulars of which are given in the following table.

Community
development

Name of Subdivision	Name of Block	Date of inauguration	Present stage	Area in sq. km.	Total population
Sadar	Darjiling-Pulbazar	1 July 1954	Post Stage II	231	56,459
	Rangli-Rangliot	1 July 1954	Post Stage II	308	38,485
	Jore Bungalow-Sukiapukhri	1 July 1954	Post Stage II	386	57,986
Kalimpong	Kalimpong I	1 April 1956	Stage II	321	33,689
	Kalimpong II	1 April 1958	Stage II	287	27,643
	Gorubathan	July 1961	Stage I	448	22,260
Kurseong	Mirik	July 1961	Stage I	97	17,756
	Kurseong	26 May 1962	Stage I	327	46,960
Siliguri	Siliguri-Naksalbari	1 April 1958	Stage II	364	1,10,000
	Kharibari-Phansidewa	2 October 1962	Stage I	480	84,587

The actual expenditure incurred by the Blocks in 1966-7 under different welfare programmes is shown in the following table.

Some of the schemes were financed, as usual, from the State exchequer while in others, people's participation through contribution of funds or of voluntary labour was a necessary pre-condition.

ACTUAL EXPENDITURE (IN RS.) INCURRED DURING 1966-67
UNDER DIFFERENT WELFARE PROGRAMMES IN THE
DEVELOPMENT BLOCKS OF DARJILING DISTRICT¹

Name of Block	Agri- culture	Ani- mal Hus- bandry	Irriga- tion	Cot- tage Indus- try	Com- munica- tion	Tribal Wel- fare	Social Edu- cation	Pan- cha- yats	Com- munity Re- crea- tional acti- vities
Darjiling- Pulbazar	10,327	—	39,198	—	8,871	—	—	7,800	—
Rangli- Rangliot	9,553	—	37,413	4,000	—	2,259	—	5,200	470
Jore Bun- galow- Sukiapukhri	24,232	—	30,000	3,000	2,141	11,279	3,057	—	1,000
Kalim- pong I	7,000	1,360	31,275	6,000	3,000	—	5,273	22,218	600
Kalim- pong II	15,478	1,360	23,800	4,000	—	—	1,458	9,100	600
Goru- bathan	20,973	2,520	41,902	16,178	—	—	3,000	—	700
Mirik	6,272	1,400	700	—	—	1,530	—	1,300	—
Kurseong	16,360	1,660	36,872	5,000	10,000	—	1,000	—	750
Siliguri- Naksal- bari	29,845	—	35,000	5,000	5,000	—	2,575	10,400	5,000
Kharibari- Phansi- dewa	25,001	—	28,796	5,000	3,800	30,919	—	13,000	650

¹ Source : B.D.O'. of respective Blocks.

APPENDIX

LIVELIHOOD CLASSES IN DARJILING DISTRICT : 1971¹

Category	Description	Total No. of Persons	Males	Females
I	Cultivators	86,054	60,948	25,106
II	Agricultural Labourers	25,783	18,450	7,333
III	Livestock, Forestry, Fishing, Hunting and Plantations, Orchards and allied activities	76,172	39,434	36,738
IV	Mining and Quarrying	90	85	5
V	Manufacturing, Processing, Servicing and Repairs			
	(a) Household Industry	4,923	3,683	240
	(b) Other than Household Industry	8,802	8,280	522
VI	Construction	3,371	2,961	410
VII	Trade and Commerce	19,051	17,948	1,103
VIII	Transport, Storage and Communications	15,255	14,07	1,176
IX	Other Services	42,941	37,4	5 536
I-IX	Total Workers	2,82,442	2,03,273	79,169
	Non-Workers	4,99,335	2,12,169	2,87,166

¹ Directorate of Census operations, West Bengal—*Census 1971; West Bengal : Census Handbook; Darjeeling*, Calcutta, 1973; pp. 80-83.

CHAPTER VIII

GENERAL ADMINISTRATION

Most parts of the province of Bengal, Bihar and Orissa were governed, as *The Cambridge History of India* says, by a system of elaborate regulations, which since the days of Hastings and Cornwallis had gradually been evolved at Calcutta. Arrangements were, however, made for governing the peoples of newly acquired territories or of tracts inhabited by aboriginal tribals under a simpler 'non-regulation' system. In Bengal, for instance, this plan was necessarily followed in the Jalpaiguri and Darjiling districts.¹

The State Government set-up

Deputy Commissioner

The administration of Darjiling district since 1835 had been in the hands of a Superintendent. In the words of Jackson : "The powers vested in this officer include the political relations of our Government with the Sikkim Rajah and the civil, criminal and fiscal duties : he is also Post Master and Marriage Registrar and has charge of the Station Funds, viz., the income from the lands in about the Station, leased by Government for building purposes, which are applied by the authority of the Government to local purposes."² The Superintendent of Darjiling came to be designated as Deputy Commissioner with effect from 8 May 1850.³ The duties he had to perform were almost analogous to those of a District Magistrate and Collector posted in a regulation district of Bengal. As Hunter says : "The district officer, whether known as Collector-Magistrate or as Deputy Commissioner, is the responsible head of his jurisdiction. Upon his energy and personal character depends ultimately the efficiency of our Indian Government. His own special duties are so numerous and so various as to bewilder the outsider; and the work of his subordinates, European and Native, largely depends upon the stimulus of his personal example. . . He is a fiscal officer, charged with the collection of the revenue from the land and other sources; he is also a revenue and criminal judge, both of first instance and in appeal. . . Police, jails, education, municipalities, roads, sanitation, dispensaries, the local taxation, and the . . . revenues of his District are to him matters of daily concern. He is expected to make himself acquainted with every phase of the social life of the natives and with each natural aspect of the country. He should be a lawyer, an accountant, a surveyor, and ready writer of State papers. He ought also to possess no mean knowledge of agriculture, political economy and engineering."⁴

¹ *Op. cit.*, Vol. VI., edited by H.H. Dodwell ; New Delhi, 1958 ; PP. 22f.

² W.A. Jackson—*Report on Darjeeling*. Selection from the Records of the Bengal Government No. XVII. 1852. p. 3.

A. J. Dash—*Bangal District Gazetteers : Darjiling* ; Alipur, 1947 ; p. 3.

³ W. W. Hunter—*Indian Empire*, London, 1893 ; ip. :573 (quoted in the *Bengal Administration Report*, 1911-2 ; pp. 54f).

After the political upheaval of 1857, a District Officer had to shoulder additional responsibilities—not so much for resisting internal disquiet or external invasion as for the expansion of State activity in the spheres of municipal and local bodies, roads and railways, commerce and industry, education and statistics, agriculture and co-operation, cadastral surveys and census operations, epidemic and famine relief, etc. Writing on the subject, O'Malley pointed out the specific functions of a Deputy Commissioner: "The Deputy Commissioner is the head of the local administration, and performs a number of duties which do not fall to the lot of a Collector in an ordinary regulation district. He exercises the powers of a Sub-Judge in disposing of appeals from the Munsif of Kurseong and Siliguri, but has no power to entertain civil suits of first instance. He is vested with the powers of a District Delegate, and in that capacity deals with uncontested applications for probate of wills and letters of administration; and he also disposes of intestate cases and of any applications to be declared insolvent, which may be made over to him by the District Judge. A large portion of his work consists of the administration of various funds and local bodies. As the Chairman of the District Road Fund Committee .. he is responsible for the maintenance of a large number of roads scattered over the hills and the Tarai; as Chairman of the Darjiling Municipality, he controls the administration of the affairs of the station; and both as Deputy Commissioner and as Vice-President of the District Committee of Public Instruction, he is in close touch with the education of the people. He is also *ex officio* Chairman of the Darjiling Town Improvement Committee of the Darjiling Dispensary Committee, of the Natural History Museum and Water-works Committees appointed by Government, and of the Managing Committee of Lowis Jubilee Sanatorium."¹ In more recent times, there have been further changes in the character and composition of the duties of the Deputy Commissioner, Darjiling. By virtue of his powers of control over a very considerable *Khas-Mahal* (233 sq. miles), over most of the bazars in the district, over the work of the District Board as its Chairman and over the Darjiling Town administration as Chairman of the Municipality, his duties are more onerous than those of his counterpart in a regulation district.² To these, Dash adds others in the following words: "The Bengal Tenancy Act is not in force (in the district) and Act X of 1859 and Act VIII of 1879 regulate the rights and liabilities of the rural population. The Bengal Local Self-Government Act and the Bengal Municipal Act have special modifications adapting them to local conditions. The Bengal Village Self-Government Act is in force only in the Siliguri town area and the Chowkidary Act

1 L. S. S. O'Malley—*Bengal District Gazetteers: Darjeeling*; Calcutta 1907; pp. 156-57.

2 A. J. Dash—*op. cit.*, p. 44.

only in the non-tea rural areas of the Siliguri subdivision .. A number of special amendments to the Motor Vehicles Act have been found necessary to meet hill conditions.”¹

Broadly speaking, all this is past history. Although the local administration still exhibits peculiarities due to the special application of various enactments, the Constitution Act of 1950 has abolished the special privileges, hitherto extended to the district. The Deputy Commissioner now performs duties almost analogous to those discharged by the District Officers in other districts of the State.

Present duties of
Deputy Commi-
ssioner

Under the present set-up, the Deputy Commissioner, Darjiling holds a wide array of powers and discharges varied responsibilities covering all aspects of the district. He has to look after public safety and protection of citizens and all their rights. For these purposes, he is to maintain law and order and to administer criminal justice. The district police force is, therefore, provided to him by law to enforce his authority in this regard. The enabling legislation reads : “The administration of the police through the local jurisdiction of the Magistrate of the district shall, under the general control and direction of such Magistrate, be vested in a District Superintendent of Police.”² He may also call up units of the National Volunteer Force when needed.³ If any crisis or emergency arises, he has been empowered by Codes, Acts and Rules to take such action as he thinks fit.

As regards the administration of criminal justice, he has, normally, under him magistrates with first, second or third class powers besides honorary magistrates and magistrates’ benches. He is to see that the cases pending with individual magistrates are disposed of expeditiously in conformity with the provisions of the relevant Codes and Acts. Thus, the Deputy Commissioner and his subordinate executive magistrates are responsible for the prevention of crime and preservation of peace with the assistance of the police.

The Deputy Commissioner also exercises overall control regarding jail administration leaving the day-to-day work to be performed by the Jailor or Sub-Jailor concerned. It is his duty, or that of the staff deputed by him, to visit the jails, to count the prisoners, to examine the records relating to discipline, to check the security measures, to examine the jail-ticket of every under-trial prisoner, to examine the food and to pay special attention to the cases of juvenile offenders. In the absence of the Superintendent of the District Jail, he, or an officer authorised by him, holds temporary charge of that establishment.

1 A. J. Dash—*op. cit.*, p. 44f.

2 *The Indian Police Act*, 1861, Section 4.

3 *The West Bengal National Volunteer Force Act*, 1949.

The Deputy Commissioner has other duties relating to anti-corruption, enforcement, utilization of scarce resources, and detention of individuals if the security of the State is involved. He has also to deal with border problems and maintain liaison with the defence services.

In regard to land revenues, land records and surveys and management of Government estates, the Deputy Commissioner works under the Board of Revenue, West Bengal and ensures maintenance of varied statistics relating to records of rights, plot indexes, accounts of boundary disputes and settlement records etc. He is to maintain registers of all lands used for public purposes or in the possession of self-governing agencies of the district. He, moreover, maintains a register of unoccupied Government lands and is kept posted about settlement operations in the district, assuming charge of such operations when no Settlement Officer is appointed. Settlement of disputes over the possession of lands, alluvial accretions and premises is also his duty. He holds charge of *khas* lands, has to select sites for civil buildings and can order the use of agricultural land for non-agricultural purposes. In the conservation and development spheres, he supervises proper maintenance of embankments and irrigation tanks, grants loans to individuals for land development or other agricultural purposes and initiates schemes for agricultural or sanitary improvement. He holds charge of the estates vested in Government and is responsible for their management. The acquisition of lands or premises for Government projects and other public purposes is also his responsibility. Determination of the rate of land revenue and the annual collection thereof from tenants along with cesses, education tax etc. are his important revenue functions. He is also empowered to collect certain excise revenues, stamp duties on impounded documents, various licence fees and improvement levy for any specified area.¹ Besides exercising general supervision over the subordinate revenue staff, he hears certain revenue appeals and is in superior charge of the District Treasury, the day-to-day work of which is carried on by the Treasury office.

The Deputy Commissioner also exercises general supervision over the local self-government organizations and ensures that their proceedings are in conformity with the law and the rules. He may rescind their orders and resolutions if he feels that their execution is likely to cause public injury or a breach of the peace.

1 The *Indian Motor Vehicles Act*, 1939 ; the *Bengal Motor Vehicles Rules*, 1940 ; the *Bengal Places of Public Amusement Act*, 1933 ; the *West Bengal Cinemas (Regulations) Act*, 1954 ; the *Indian Petroleum Act*, 1934 ; the *Petroleum Rules*, 1937 ; the *Indian Explosives Rules*, 1940 ; the *Indian Explosives Act*, 1884 ; the *Indian Opium Act*, 1878 ; the *Bengal Opium Smoking Act*, 1932 ; the *Indian Arms Act*, 1878 ; the *Indian Arms Rules*, 1951, etc. envisage the issue of licences against fees. The Deputy Commissioner also issues licences for the manufacture, storage, sale and transport of intoxicants as also for any construction or excavation involving the bed of a navigable river, as it appears from the *West Bengal Excise Compilation*, 51 and Part-II, 1958 and the *West Bengal Government Estates* 953,

The Deputy Commissioner serves, too, as a link between the district administration and the Zilla Parishad, appoints Returning Officers for the Parishad's elections, calls meetings of that body for the election of its Chairman and Vice-Chairman and the Standing Committees, decides, which between the Zilla Parishad and the Anchalik Parishad will execute and maintain a state-sponsored work, controls the annual allocation of State funds to the Zilla Parishad and all communications on grants and contributions pass through his office. The District Panchayat Officer, wholly responsible to the Deputy Commissioner, keeps in close touch with him about the affairs of the Zilla Parishad and each of its Standing Committees include two district-level officers who are subordinate to the latter. He also acts as the medium between the Anchalik Parishads and the State government in all communications relating to the allotment of public funds and apportions responsibilities between the Zilla Parishad and the Anchalik Parishads regarding execution and management of State-sponsored schemes for irrigation, supply of drinking water and lighting. He may also act as an appellate authority in respect of an appeal against the assessment made by an Anchalik Parishad. He determines the number of dafadars and chowkidars, fixes and pays their salaries and recruits and punishes them when necessary. He also decides disputes relating to panchayati elections.

The Deputy Commissioner maintains records of births and deaths, supervises decennial censuses, grants citizenship certificates to eligible persons, conducts elections to the Parliament, the State Legislature and the local bodies. He is equally concerned with the relief and rehabilitation of refugees and tribal welfare. Executing food for relief works and providing gratuitous relief to the deserving are also his duties.

As the District Development Officer, he controls and coordinates all development activities under the Five Year Plans within the district.¹ The district-level officers of such welfare departments as agriculture, irrigation, animal husbandry, cooperation, small-scale & cottage industries, panchayats, education, social education, communication, health etc. receive general guidance from the District Officer. All the district-level officers are under instruction to inform the District Officer of all matters. "The District Officer should be kept informed of all important problems, activities and developments in connection with the administration of every department of Government, so that he has an accurate idea of the current Government activities in every sphere of the life of the community. All departments of Government should issue necessary instructions to their departmental officers at district level requiring them to keep the District Officer informed and if necessary, consulted by the departmental officers whenever important directions are received from a Government department

¹ *The West Bengal Manual on the Community Development Programmes, 1958*

and also whenever important proposals or reports are sent up to Government by them.¹ Although these technical officers work normally under their respective departmental heads, the District Officer assesses the progress of their work and removes the obstacles in the implementation of their tasks with the help of The District Planning officer placed under him. "The district administration has now evolved into a fairly clear establishment, conforming to the total purpose and apparatus of government in the district. The purpose is three-fold: the maintenance of law and order, the revenue administration and the development activities for the economic and social advancement of the people of the district."² A District Development Council (later a Planning Board) consisting of the Chairman of the Zilla Parishad, the Chairmen of the Municipalities, the Superintendent of Police, the President of the District School Board, one representative of Anchal Panchayats from each police station, the local members of West Bengal Legislative Assembly and of the Union Parliament and Council of States, district-level officers of departments concerned with community development, Subdivisional Officers and persons from private life appointed by the State Government advises him on all developmental matters. Similarly, at the block level, Block Development Committees consisting of all block-level officers and distinguished non-officials advise on local development programmes. Although Potter thinks that attention to the welfare of the district population was not outside the scope of administration in British days, he, however, admits that the present district set-up is more extensively concerned with the directive principles of the Constitution of India aiming at the welfare of the people.³

In addition to these explicit responsibilities, the Deputy Commissioner has various residual powers as the local agent of the Government. In emergencies like famine, agricultural deterioration, drought or flood, he is responsible for taking proper steps so that these calamities are arrested and the victims are provided with relief. He also supervises the supply and distribution of controlled articles and issues passports and visas. To keep Government posted about important matters relating to the district, he sends a number of periodical and annual reports to the various Departments and Directorates as also to the Divisional Commissioner. Frequent tours enable him to maintain an effective supervision over his subordinate personnel and a healthier understanding between the Government and the people. For the latter purpose, he associates himself with a number of official and non-official organizations. To name a few, he is the President of the Government High School, the Maharani Girls' School and the

1 *The West Bengal Board's Miscellaneous Rules*, 1955, pp. 7-8.

2 S. S. Khera—*District Administration in India*; Bombay, 1964; p. 254.

3 David C. Potter—*Government in Rural India*; London, 1964.

Government College and is the Chairman of the Victoria Boys' School, the Dow Hill Girls' School, the St. Paul's School and is associated with the Jubilee Sanatorium and various other organizations.

**Additional Deputy
Commissioner**

The Additional Deputy Commissioner, also a member of the Indian Administrative Service, holds charge of the district when the Deputy Commissioner is away. He mainly looks after Land Reforms, Compensation, Touzi, Cess, Revenue Munshikhana, Excise, Refugee Relief and Rehabilitation, Forms, Stationery, Library, Record Room, and Copying Departments.

Subordinate to the Deputy Commissioner in varying degrees, there are, broadly, four groups of district-level officers, namely (i) officers posted by the Home (General Administration) Department; (ii) officers belonging to the various Directorates but working under the day-to-day supervision of the Deputy Commissioner; (iii) Directorate officers subject to the dual control of the Deputy Commissioner and their respective Directorates and (iv) Directorate officers who are nearly equal in status to the Deputy Commissioner but are still subject to his control as well as to that of their own Directorates.

The first group generally consists of members of the West Bengal Civil Service (Executive) and West Bengal Junior Civil Service (Executive). These two services have been amalgamated of late. The second group includes the Excise Superintendent, the Jail Superintendent, the District Tribal Welfare Officer, the Field Information Officer and others. The third group comprises the District Controller of Food and Supplies, the District Agricultural Officer, the District Industrial Officer, the District Social Education Officer, the Assistant Labour Commissioner, the District Fishery Officer etc. The fourth group is represented by the Superintendent of Police, the Chief Medical Officer of Health, the Divisional Forest Officer, the Executive Engineers of the Directorates of Public Works, Roads, Irrigation and Waterways, Public Health Engineering, Housing, and Construction Board.

The table below¹ indicates, subdivisionwise, the strength of members of the W. B. C. S. (Executive) and W. B. J. C. S. (Executive)—amalgamated since—who are commonly called Deputy Magistrates and Sub-Deputy Magistrates respectively, as obtaining in 1967.

i Subdivision	Deputy Magistrates & Deputy Collectors	Sub-Deputy Magistrates & Sub-Deputy Collectors
Sadar	6	6
Kalimpong	1	4
Siliguri	3	6
Kurseong	1	3

¹ Source : The Deputy Commissioner, the Subdivisional Officers and the Block Development Officers of Darjiling district.

**Deputy and
Sub-Deputy
Magistrates**

At Sadar, a Deputy Magistrate acts as the Subdivisional Officer while the others hold the posts of Tribal Welfare Officer, Special Land Acquisition Officer, Regional Transport Officer, District Panchayat Officer etc. The solitary Deputy Magistrate at Kalimpong holds the post of Second Officer. Of the three Deputy Magistrates at Siliguri, one is the Sub-divisional Officer while the others are trying magistrates. The single Deputy Magistrate at Kurseong holds charge of the subdivision when an I. A. S. officer does not hold that office.

Among the six Sub-Deputy Magistrates at Sadar, three are Block Development Officers and the others hold the posts of Assistant Tribal Welfare Officer, Additional Land Acquisition Officer and Treasury Officer respectively. Of the four Sub-Deputy Magistrates at Kalimpong, two are Block Development Officers while the rest hold the posts of Khasmahal Officer and Special Officer, Tribal Welfare. In Siliguri two Block Development Officers, two trying magistrates (one of whom acts as the Second Officer), one Subdivisional Land Reforms Officer and a Relief & Rehabilitation Officer are Sub-Deputy Magistrates. Of the three Sub-Deputy Magistrates at Kurseong one is the Second Officer while the others act as Block Development Officers.

The table below¹ indicates, subdivisionwise, the number of Class III and Class IV staff working in the district in 1966-67 :

Subdivision	No. of Class III staff	No. of Class IV staff
Sadar	147	81
Kalimpong	17	27
Siliguri	71	59
Kurseong	16	15

¹ Source : The Deputy Commissioner, the Subdivisional Officers and the Block Development Officers of Darjiling district.

Block adminis-
tration

Each Block in the district is normally headed by a Block Development Officer who is in overall charge of its administration. Rangli-Rangliot and Siliguri-Naksalbari Blocks, however, have each an Administration and Programme Officer who is a Joint Block Development Officer *ex-officio*. The personnel pattern in the several Blocks is given in the table below:¹

Name of Block	Exten- sion officers	Gram Sevaks	Gram Sevikas	Class III	Class IV	Establish- ment expenditure 1966-67 (in Rs.)
Darjiling- Pulbazar	7	9	1	7	8	95,846
Rangli- Rangliot	8	10	2	7	7	1,01,808
Jore-Bungalow- Sukhiapokhri	8	10	2	7	12	1,12,960
Kalimpong-I	9	10	2	6	14	1,13,332
Kalimpong-II	7	6	2	11	8	99,185
Gorubathan	6	5	2	9	7	92,000
Kurseong	7	3	2	7	6	49,229
Mirik	7	5	2	4	10	77,189
Siliguri- Naksalbari	9	10	2	8	10	1,42,443
Kharibari- Phansidewa	8	9	1	6	8	75,859

Agricultural
administration

The Economic Botanist is in overall charge of agricultural administration in the district. He has under him five offices of which the General Section with its headquarters at Darjiling is manned by one Research Assistant, two Accountants, two Typist-clerks, one Cashier, one Stenographer and two inferior staff. The State Potato Research Station at Bhajang is headed by a Research Assistant who has under him a Laboratory Attendant and two Class IV staff. For the pepper development scheme at Kalimpong there is a Research Assistant who is helped by

¹ Source : The Block Development Officers, Darjiling district.

two Field Assistants. Another Research Assistant, aided by a Field Assistant, looks after the cardamom development scheme at Kalimpong.¹ The Assistant Engineer, Agri-Irrigation, Darjiling supervises all engineering projects launched in the district by the Directorate of Agriculture. He is assisted by two Sub-Assistant Engineers, one Surveyor, one Mechanic, two Work-Assistants, one Accounts-clerk and one Clerk-typist besides certain Class IV staff. The establishment expenditure incurred by this office during 1966-67 was Rs. 25,602.

Agricultural marketing in the district is looked after by the District Agricultural Marketing Officer who is assisted by four Subdivisional Agricultural Marketing Officers, one for each subdivision. Besides, he has a Packaging and Demonstrative Officer and also an Instructor-cum-Production Officer, both posted at Siliguri. Nineteen Class III and twentyone Class IV staff also work under him. The establishment expenditure of this set-up during 1966-67 was Rs. 1,12,401.²

Agricultural
marketing

For administering Agricultural Income Tax, there is no establishment exclusively for the district which falls within the Jalpaiguri Range Agricultural Income Tax Office located at Jalpaiguri town. The office is manned by four Agricultural Income Tax Officers, two Inspectors, ten assistants and seven Class IV staff. The total establishment expenditure of this office during 1966-67 was Rs. 90,572.³

Agricultural
Income Tax

The Director of Cinchona, West Bengal looks after the management of cinchona plantations and the quinine factory at Mangpu as also the distribution of quinine and other ancillary products. He is assisted by a Horticulturist, an Assistant Horticulturist, a Quinologist, an Assistant Quinologist, three Managers and four Assistant Managers of cinchona plantations besides twentytwo technical personnel and fortythree office assistants. He has also under him an Accounts Officer, three Medical Officers, five Compounders, three Lady Health Visitors, six Nurses and sixtyfive Class IV staff. The total establishment expenditure for this unit during 1966-67 was Rs. 39,43,303.⁴

Cinchona Planta-
tions

The Commercial Tax establishment at Darjiling is headed by two Commercial Tax Officers who are responsible for the administration of *Bengal Finance (Sales) Tax Act of 1941*, *Bengal Motor Spirit Sales Taxation Act of 1941*, *Bengal Raw Jute Taxation Act of 1941*, *West Bengal Sales Tax Act of 1954* and *Central Sales Tax Act of 1956*. They assess and realize the various commercial

Commercial Taxes

¹ Source : The Economic Botanist, Darjiling.

² Source : The Agricultural Marketing Officer, Darjiling.

Source : Commissioner, Agricultural Income Tax, West Bengal.

⁴ Source : The Director of Cinchona, West Bengal.

taxes and make special efforts to improve collection. They are assisted by one Inspector and nine Class III and four Class IV staff. The total establishment expenditure for this unit during 1966-67 was Rs. 56,069.¹

The jurisdiction of the Siliguri Commercial Tax Office extends over the Siliguri subdivision of the Darjiling district, the Raiganj police station in the Sadar subdivision of the Jalpaiguri district and the Islampur subdivision of the West Dinajpur district. The office is headed by two Commercial Tax Officers who are assisted by two Inspectors, ten Class III and four Class IV staff. The establishment expenditure for this organization during 1966-67 was Rs. 19,345.²

Co-operation

The Deputy Registrar of Co-operative Societies, Northern Zone, with his headquarters at Siliguri looks after all matters relating to co-operative activities in the district. He is assisted by two Co-operative Development Officers in the matter of organization and development of co-operative societies and the usual complement of office staff. The total establishment expenditure of this set-up during 1966-67 was Rs. 37,210.³

Auditing the accounts of co-operative societies is the responsibility of the Assistant Registrar of Co-operative Societies, Darjiling. For audit, arbitration and certificate work he is assisted by a District Auditor of Co-operative Societies, a Co-operative Development Officer, twelve Inspectors and nine Auditors besides the usual complement of clerical and inferior staff. During 1966-67 the establishment expenditure of this unit was Rs. 95,354.⁴

Employment Exchange

The Sub-Regional Employment Exchange at Darjiling is headed by an Employment Officer who looks after the registration and placement of employment seekers. He explores employment opportunities, contacts employers and trade unions and keeps them posted about the availability of various categories of workers. He has six Class III and five Class IV employees under him. In 1966-67 the Exchange incurred an establishment expenditure of Rs. 33,845.⁵

1 Source : Commissioner, Commercial Taxes, West Bengal.

2 Source : Administrative Officer, Commercial Taxes Directorate.

3 Source : Deputy Registrar of Co-operative Societies, Northern Zone, Siliguri.

4 Source : Assistant Registrar of Co-operative Societies, Darjiling.

5 Source : Employment Officer, Darjiling.

In 1966-67 Darjiling district had three fire stations, one each at Darjiling, Kalimpong and Siliguri. The personnel pattern for the same year is shown in respect of the latter two stations, in the table below :

Fire services

Personnel	Kalimpong	Siliguri
Station Officer	1	1
Sub-Officer	1	1
Leading Firemen	4	5
Fire Operator-cum-Driver	5	9
Firemen	22	25
Mechanic Grade II	—	1
Inferior staff	2	2
Establishment Expenditure (for all the stations)...Rs. 1,12,570		

The following table¹ indicates the activities of the fire stations during 1966-67.

	Darjiling ²	Kalimpong	Siliguri
Fire calls attended		20	83
Special jobs performed		1	17
Lives saved		1	8
Animals saved		—	6
Property involved		Rs. 6,12,175	Rs. 6,69,865
Property saved		Rs. 3,07,320	Rs. 5,15,442

Not available

The District Fishery Officer's jurisdiction also includes the Sadar subdivision of the Jalpaiguri district. He renders technical help to the public in developing pisciculture and advances loans to fishermen as sanctioned by the Government. He has under him an Assistant Fishery Officer posted at Kalimpong with almost analogous duties and the usual complement of office staff. The establishment expenditure of this set-up during 1966-67 was Rs. 21,342.³

Fisheries

¹ Source : Particulars regarding Kalimpong and Siliguri have been supplied by the Divisional Fire Officer, Siliguri.

² Not available.

³ Source : District Fishery Officer, Darjiling.

Food and
Supplies

The District Controller of Food and Supplies, Darjiling holds jurisdiction over the districts of Darjiling, Jalpaiguri and Koch-Bihar. For attending to his duties relating to Darjiling district alone, he is assisted by four Subdivisional Controllers of Food and Supplies, one for each subdivision, two Chief Inspectors, one Sub-Inspector and the usual complement of office staff. The establishment expenditure of his office for 1966-67 was Rs. 1,46,300.

The Subdivisional Controller of Food and Supplies, Darjiling exercises jurisdiction over the Sadar subdivision of the district and has under him three Chief Inspectors, five Inspectors, twelve Sub-Inspectors besides the normal contingent of office staff. His establishment incurred an expenditure of Rs. 1,73,463 during 1966-67. The Subdivisional Controller of Food and Supplies, Siliguri looks after that subdivision with the aid of three Chief Inspectors, four Inspectors, nine Sub-Inspectors and the usual office personnel. His establishment expenditure during 1966-67 was Rs. 1,04,010. The Subdivisional Controller of Food and Supplies, Kalimpong is in charge of that subdivision and has under him three Chief Inspectors, four Inspectors, seven Sub-Inspectors and the customary complement of office staff. His establishment incurred an expenditure of Rs. 97,242 in 1966-67. The Subdivisional Controller of Food and Supplies, Kurseong holds jurisdiction over the Kurseong subdivision with the help of two Chief Inspectors, three Inspectors, four Sub-Inspectors and the usual office staff. His establishment expenditure for 1966-67 was Rs. 91,767.¹

Forests

Conservator of
Forests, Northern
Circle

Up to 1874, the forests of the district were included in the Koch-Bihar Forest Division. In 1875, they came to form a separate Division along with the hill portions of the Kalimpong and Kurseong Divisions. As a result of further reservation of forests in the Tarai and the Duars, Schlich reorganized the Divisions in 1878 and the Darjiling, Tista (now Kalimpong) and Kurseong Divisions came into being. O'Malley wrote in 1907 that "with the exception of 20 square miles of forest in the Kalimpong tract under the charge of the Deputy Commissioner, all the forests in the district are reserved forests controlled by the Forest Department."² The set-up patterns of the various forest establishments functioning in the district in 1966-67 are described in the following paragraphs. The Conservator of Forests, Northern Circle, is in charge of Darjiling, Kalimpong, Kurseong, Baikunthapur, Buxa-duars, Jalpaiguri and Koch-Bihar Forest Divisions. The total establishment expenditure of his unit during 1966-67 was Rs. 1,42,761.³

¹ Source : Assistant Director, District Distribution, Procurement & Supply, Department of Food and Supplies.

² L. S. S. O'Malley—*Bengal District Gazetteers : Darjeeling* ; Calcutta, 1907 ; pp. 87-8.

³ Source : Conservator of Forests, Northern Circle, West Bengal.

The Divisional Forest Officer, Darjiling Division, exercises jurisdiction over the Sadar subdivision and a part of Kalimpong subdivision comprising 120 sq. miles. He has under him an Assistant Forest Officer, ten Forest Rangers and thirtythree Deputy Forest Rangers, besides the usual complement of office staff and a large contingent of inferior personnel.

The Divisional Forest Officer, Kalimpong Division, is assisted by an Additional Divisional Forest Officer, two Assistant Conservators of Forests, eight Forest Rangers and thirty Deputy Forest Rangers besides the usual office staff and a large contingent of inferior staff. His establishment expenditure during 1966-67 was Rs. 1,94,294.¹

Kalimpong
Division

The Divisional Forest Officer, Kurseong Division, is assisted by an Assistant Forest Officer, six Forest Rangers and twentytwo Foresters in addition to the usual office staff and a large batch of Class IV personnel. The establishment expenditure of this Division for 1966-67 was Rs. 2,98,140.²

Kurseong Division

Although the Apalchand and Baikunthapur forests are in the Jalpaiguri district, the Divisional Forest Officer holding charge over them has his headquarters at Siliguri. He has under him an Assistant Forest Officer, six Forest Rangers, twentysix Deputy Forest Rangers and the usual contingents of clerical and field staff. The establishment expenditure of this set-up for 1966-67 was Rs. 2,04,854.³

Baikunthapur
Division

The Divisional Forest Officer, Working Plans Division (North), is in charge of forest planning in Darjiling, Jalpaiguri, Koch-Bihar, Kurseong, Kalimpong, Baikunthapur and Buxa-Duar Divisions. He is assisted by three Forest Rangers, twelve Deputy Rangers and the usual complement of non-Gazetted staff. His office incurred an establishment expenditure of Rs. 1,02,819 during 1966-67.⁴

Working Plans
Division (North)

Implementation of the schemes for soil conservation, survey and land-use planning in the districts of Darjiling, Jalpaiguri and Koch-Bihar is the responsibility of a Soil Conservation Officer (Survey and Planning) posted at Siliguri. He has five technical assistants under him besides other office staff. The establishment expenditure of his set-up during 1966-67 was Rs. 17,067.⁵

Soil conservation

¹ Source : Divisional Forest Officer, Kalimpong Division.

² Source : Divisional Forest Officer, Kurseong Division.

³ Source : Divisional Forest Officer, Baikunthapur Division.

⁴ Source : Divisional Forest Officer, Working Plans Division (North).

⁵ Source : Soil Conservation Officer, Siliguri.

The Divisional Forest Officer in charge of the Kurseong Soil Conservation Division is assisted by four Forest Rangers and twelve Deputy Forest Rangers besides the usual office staff. The establishment expenditure of his set-up for 1966-67 was Rs. 1,36,707.¹

The Divisional Forest Officer, Kalimpong Soil Conservation Division is assisted by five Forest Rangers and fifteen Deputy Forest Rangers besides the normal contingent of office staff. The establishment expenditure incurred by his office during 1966-67 was Rs. 1,12,312.²

Silvicultural
Division (North)

The Silviculturist is in overall charge of the Division consisting of Darjiling, Jalpaiguri, Koch-Bihar, Maldah, Murshidabad, Nadia and 24-Parganas districts. He has under him an Additional Divisional Forest Officer, an Assistant Forest Officer, seven Forest Rangers, seventeen Deputy Forest Rangers in addition to the usual complement of Class III and Class IV staff. The establishment expenditure of this set-up during 1966-67 was Rs. 1,80,928.³

Forest School,
Dow Hill

The Forest School at Dow Hill, Kurseong is headed by a Director who is assisted by an Assistant Director, two Instructors, a Forester and a few clerical hands and inferior staff. His establishment expenditure for 1966-67 was Rs. 2,54,755.⁴

Housing

An Assistant Engineer stationed at Siliguri looks after various housing schemes in the whole of North Bengal. He has under him three Sub-Assistant Engineers and several clerical and work-charged staff. Rs. 41,721 of which Rs. 7,700 was spent for the latter, constituted his establishment expenditure during 1966-67.⁵

Industries

The District Industrial Officer, who is responsible for implementation of industrial schemes of the State Government within the district, has under him an Investigator, an Extension Officer, a few clerks and inferior staff. His establishment expenditure for 1966-67 was Rs. 29,722.⁶

Rural Industries
Project

The Project Officer, Rural Industries Project supervises this special scheme with the aid of an Economic Investigator, two Extension Officers, seven Supervisors of Training Centres, five Demonstrators, six skilled Operators and two Technical Assistants, while the sales wing is in the immediate charge of a Manager-

¹ Source : Divisional Forest Officer, Kurseong Soil Conservation Division.

² Source : Divisional Forest Officer, Kalimpong Soil Conservation Division.

³ Source : Divisional Forest Officer, Silvicultural Division (North).

⁴ Source : The Director, Forest School Dow Hill.

⁵ Source : Superintending Engineer, Housing Construction Circle N o. I.

⁶ Source : District Industrial Officer, Darjiling.

cum-Salesman assisted by two Sales Assistants. There is also the usual complement of office staff and a few Class IV personnel. The total outlay, including expenditure for the establishment and for the implementation of various schemes, during 1966-67 was Rs. 57,262.¹

A part-time Principal is the head of the Industrial Training Institute, Siliguri. He has under him seven Instructors for various trades and the usual clerical and inferior staff. His establishment expenditure for 1966-67 was Rs. 31,910.²

Industrial Training
Institute, Siliguri

The Industrial Training Institute at Tung is run by its Principal who has under him a Foreman, three Supervisors and eighteen Instructors for imparting training in various trades. Besides, there is a Medical Officer, a Compounder and the usual complement of Class III and Class IV staff. The establishment expenditure incurred by the institution during 1966-67 was Rs. 2,45,835.³

Industrial Training
Institute, Tung

The Industrial School and Workshop, Tung is under a Superintendent who is assisted by an Assistant Superintendent, a Foreman, a Carpenter, two Turners, a Fitter Mechanic, a Moulder, a Blacksmith, a Welder, three Technical Assistants, a Grinder Polisher and a Machinist for imparting training in various trades besides the usual contingents of office and inferior staff. The establishment expenditure incurred by the institution during 1966-67 was Rs. 93,919.⁴

Industrial School
& Workshop, Tung

The Information Officer, Darjiling looks after matters relating to information and public relations. The Field Information Officer, Darjiling performs almost similar duties. A Labour Information Officer posted at Siliguri discharges analogous functions in the cinchona and tea garden areas of the district. There are four Subdivisional Information Officers, one for each of the subdivisions. Installation and repair of Government radio sets is the responsibility of a Technical Supervisor. A Junior Administrative Officer makes arrangements for cultural programmes in the rural areas of North Bengal districts including Darjiling. The Field Information Officer has under him two Junior Information Assistants and six office assistants. A Unit Manager arranges auditorium facilities and accommodation for artists on tour in North Bengal. There are three Operators, two of whom are attached to the District Audio-Visual Unit while another works for the Labour Information Officers' Audio-Visual Unit at Siliguri. Besides, there are two Electricians and a few members of the inferior staff. The total establishment expenditure for this set-up during 1966-67 was Rs. 97,044 approximately.⁵

Information &
Public Relations

¹ Source : Project Officer, Rural Industries Project, Darjiling.

² Source : Principal, Industrial Training Institute, Siliguri.

³ Source : Principal, Industrial Training Institute, Tung.

⁴ Source : Superintendent, Industrial School and Workshop, Tung.

⁵ Source : Field Information Officer, Darjiling.

Irrigation

Planning, investigation and designing of measures (as also their maintenance) relating to irrigation, flood control and soil conservation in the three hill subdivisions of the district are the responsibility of the Executive Engineer, Siliguri Irrigation Division who is assisted by four Subdivisional Officers, fourteen Sub-Assistant Engineers and nine Technical Assistants and the usual complement of clerical and inferior staff. The establishment expenditure for his set-up during 1966-67 was Rs. 2,03,273.¹ Analogous matters relating to the Siliguri subdivision are looked after by the Executive Engineer, Jalpaiguri Irrigation Division.

Labour

The Assistant Labour Commissioner, with his headquarters at Darjiling has under him three Labour Officers, a Supervisor, Labour Welfare Centres, an Inspector, Minimum Wages, eighteen Labour Welfare Workers, five Itinerant Lady Labour Welfare Workers, three Dresser-cum-Compounders, a Leather Craft Instructor, a part-time Doctor, a part-time Physical Instructor, a part-time Music Master and the usual quota of clerical and inferior staff. His establishment, attending to all labour disputes in the district, incurred an expenditure of Rs. 1,49,800 during 1966-67.²

Medicinal plantations

Two Managers under the Directorate of Medicinal Plants look after the medicinal plantations in the district. They are assisted by a Special Officer, a Botanist, a Mycological Assistant, an Agricultural Assistant, a Medical Officer, two Compounders, an Assistant Planter and a fairly large body of field staff besides the usual contingent of office personnel. The establishment expenditure of this set-up for 1966-67 was Rs. 25,22,569.³

Physical Education & Youth Welfare

The promotion of physical education and youth welfare in the various schools, clubs and other social organisations in the district is the responsibility of the District Officer for Physical Education and Youth Welfare who is assisted by a District Organizer of Physical Education and a few office staff. His establishment expenditure during 1966-67 was Rs. 19,393.⁴

Public Health Engineering

An Executive Engineer looks after public health engineering in the district. He has under him an Assistant Engineer, eight Sub-Assistant Engineers, a draftsman and the requisite number of clerical and inferior staff. The establishment expenditure incurred by this set-up during 1966-67 was Rs. 1,40,383.⁵

1 Source : Executive Engineer, Siliguri Irrigation Division.

2 Source : Administrative Officer, Office of the Labour Commissioner, West Bengal.

3 Source : Director of Medicinal Plants, West Bengal.

4 Source : District Officer for Physical Education & Youth Welfare, Darjiling.

5 Source : Executive Engineer, North Bengal Division, Public Health Engineering.

An Assistant Engineer is in charge of the Darjiling and Bijanbari-Pulbazar Water-Supply Schemes. He is assisted by three Sub-Assistant Engineers and a Work Assistant and a few inferior staff.¹

An Assistant Engineer is in charge of the Kurseong Water-Supply Remodelling Scheme. He is assisted by two Sub-Assistant Engineers and a number of Class III and Class IV staff. The establishment expenditure of this set-up during 1966-67 was Rs. 29,352.²

Besides his duties relating to public health engineering, the Executive Engineer is responsible for supervision and repair of Government roads and buildings, which work is carried on by a separate unit manned by six Assistant Engineers, twentythree Sub-Assistant Engineers, two draftsmen and a large number of office assistants and inferior staff. The establishment expenditure of this unit during 1966-67 was Rs. 5,32,800.³

The rationing office at Siliguri, the only of its kind in the district was abolished after the derationing of Siliguri town in February 1968. During 1966-67 it was headed by a Rationing Officer responsible for the distribution of rationed commodities in the Siliguri statutory rationing area. He had under him an Assistant Rationing Officer, a Chief Inspector, two Inspectors, eight Sub-Inspectors and a number of clerical and inferior staff. The establishment expenditure of this set-up during the said year was Rs. 67,512.⁴

Rationing

There are four registration offices in the district, one each at Darjiling, Siliguri, Kalimpong and Kurseong. The District Registration Officer stationed at Darjiling holds jurisdiction over the whole district while the other Registration Officers are in charge of the respective subdivisions. The Siliguri registration office has also a full-time Sub-Registrar while similar officers attached to the remaining sub-registration offices have to discharge magisterial duties part-time. Each of these four offices has besides the requisite number of clerks and muharrirs for preparation and maintenance of registers and records, checking of documents etc. The table below indicates the number of documents registered in these offices as also their receipts and expenditures during 1966-67.⁵

Registration

	No. of documents registered	Total Receipts Rs.	Total Expenditure Rs.
Darjiling	653	15,600	7,825
Siliguri	6,174	60,683	21,492
Kalimpong	603	6,645	4,405
Kurseong	226	2,875	4,519

1-2 Source : Executive Engineer, North Bengal Division, Public Health Engineering.

Source : Executive Engineer, Public Works Department, Darjiling Division.

Source : Administrative Officer, (Headquarters), Directorate of Rationing.

Source : The District Registrar, Darjiling.

Rehabilitation

The Rehabilitation Officer, Darjiling is assisted by three Additional Rehabilitation Officers, who conduct enquiries into applications for loans or lands, realize or remit the loans as the case may be, and regularly visit refugee concentration areas for assessing the extent of rehabilitation obtained by them. There is also a Surveyor who prepares the layout plans of sponsored schemes and maintains records for allotment of plots in Government sponsored schemes etc. The office has also the usual complement of clerical and inferior staff. The establishment expenditure of this set-up was Rs. 60,755 during 1966-67.¹

Welfare of Scheduled Castes & Scheduled Tribes

The Special Officer, Scheduled Castes and Tribes Welfare looks after schemes intended to benefit these groups of people in the district. He is assisted by a Scheduled Castes and Tribes Welfare Officer who is in charge of the Sadar and Kurseong subdivisions and by a Special Officer, Scheduled Castes and Tribes Welfare who holds jurisdiction over the Kalimpong and Siliguri subdivisions. There are two Sub-Assistant Engineers to supervise schemes relating to water supply, irrigation etc. and an Inspector to look after the educational schemes besides the usual complement of clerical and inferior staff. The establishment expenditure for this set-up during 1966-67 was Rs. 18,656.²

Shops & Establishments

The Supervising Inspector, Shops and Establishments, with headquarters at Alipurduar, looks after the administration of the West Bengal Shops and Establishments Act, 1963 in the Darjiling, Jalpaiguri and Koch-Bihar districts. Of the two Inspectors he has under him, one is for Darjiling and the other is for the remaining districts. There is also a small contingent of office staff.³

Settlement

The Settlement Charge Officer looks after land survey, settlement and compensation work within the district. He has under him a Subdivisional Revenue Officer, six Kanungos, fortytwo Peshkars, sixteen Sadar Amins, twentyfour Badar Amins, eight Janch Mohurris, a Driver and a large number of inferior staff. The establishment expenditure for this set-up during 1966-67 was Rs. 4,76,113.⁴

Social Education

The District Social Education Officer organizes and supervises all institutions under social education schemes formulated by the State Government. As regards the adult literacy scheme introduced in the district under a pilot project, he is assisted by a Technical

¹ Source : Officer-in-Charge, Refugee, Relief and Rehabilitation ; Deputy Commissioner's Office, Darjiling.

² Source : Special Officer, Scheduled Castes & Tribes Welfare, Darjiling.

³ Source : Chief Inspector, Shops & Establishments, West Bengal.

⁴ Source : Settlement Officer, Revisional Operations, Darjiling, Jalpaiguri & Koch Bihar.

Assistant while a Circle Assistant helps him in inspecting the adult education units, libraries and community centres. There is also a small contingent of clerical and inferior staff. The establishment expenditure of this set-up for 1966-67 was Rs. 20,492.¹

An Assistant Director of Tourism is in charge of the Regional Tourist Office, Darjiling which attends to all enquiries and complaints made by tourists, receives and distributes tourist literature, compiles information and offers suggestions for promotion of tourist facilities in the Darjiling region, implements various schemes for promotion of tourism and supervises tourist lodges and information centres in the same area. He is assisted by an Information Officer, three Managers of Tourist Lodges and five Information Assistants besides the usual office personnel and a large number of inferior staff. The establishment expenditure of this set-up for 1966-67 was Rs. 2,26,564.²

Tourism

The Superintendent of Veterinary Services, Siliguri Range holds jurisdiction over the district of Darjiling. He is assisted in the diagnosis of ailments, treatment of animals, control of livestock diseases and distribution of biological products by the Research Assistant, Veterinary Vaccine Sub-Station, Kurseong and by the Veterinary Assistant Surgeon attached to the Ambulatory Clinic Van. The set-up, which also includes the usual quota of Class III and Class IV staff, incurred an establishment expenditure of Rs. 63,032 during 1966-67.³

Veterinary
services

The District Veterinary Officer is in direct charge of the veterinary personnel working in the district. He has under him two Veterinary Inspectors posted at Darjiling and Siliguri who look after the State Veterinary Hospitals located at those places. Similar hospitals at Kurseong and Kalimpong are supervised by two Stationary Veterinary Assistant Surgeons. These four officers treat animals brought to the respective hospitals, inoculate poultry against diseases and take measures to control epidemics. An Itinerant Veterinary Assistant Surgeon helped by two Veterinary Field Assistants move about the Darjiling Sadar and Jore-Bungalow police stations while another Itinerant Veterinary Assistant Surgeon helped by two Veterinary Field Assistants performs similar peripatetic duties in the Naksalbari police station. There are three Veterinary Assistant Surgeons of Quarantine Stations, one each at Tista Bridge, Naksalbari and Pulbazar to immunize the outgoing and incoming cattle against rinderpest or other diseases. Each of them is assisted by a Veterinary Field Assistant. A Veterinary Assistant Surgeon helped by two Veterinary Field Assistants is attached to each of the ten Blocks in the district.

¹ Source : The District Social Education Officer, Darjiling.

² Source : Director of Tourism, West Bengal.

³ Source : The Superintendent of Veterinary Services, Siliguri Range.

Besides, a Veterinary Assistant Surgeon is attached to the Ambulatory Clinic and eight Veterinary Field Assistants to the Veterinary Aid Centres at Parentar, Sourani, Baghdogra, Pokhribong, Pubong, Tashiding, Gidabling and Lodhama. The District Veterinary Office, including a fairly large complement of Class III and Class IV staff, incurred an establishment expenditure of Rs. 1,36,282 during 1966-67.¹

**Weights &
Measures**

The Assistant Controller of Weights & Measures, Darjiling has under him an Inspector of Weights & Measures, in direct charge of Sadar and Kurseong and another for Siliguri and Kalimpong subdivisions. The latter's duties include verification, stamping of weights, checking of weighing and measuring instruments, inspection of *hats*, and bazars, carrying on propaganda for popularizing the metric system, seizure of non-standard weights and measures and launching prosecutions therefor. The establishment expenditure for this set-up, which included the usual complement of clerical and inferior staff, was Rs. 21,557 during 1966-67.²

**The Central
Government
Set-up**

The Deputy Collector of Central Excise and Land Customs, Siliguri heads the Central Excise and Land Customs organizations in all the districts of North Bengal and the Purnea district of Bihar. He has under him a Superintendent, three Inspectors and a Sub-Inspector for preventive, intelligence and anti-smuggling work besides the usual office staff.

**Central Excise
& Land Customs**

The Assistant Collector of Central Excise, Siliguri Division has his headquarters at Siliguri and exercises jurisdiction over Darjiling, West Dinajpur and Maldah districts as also the Sadar subdivision of Jalpaiguri district and the Haldibari police station of Koch-Bihar district. He has under him a Superintendent, three Inspectors, a Sub-Inspector and the usual complement of superior and inferior staff.

The Superintendent stationed at Darjiling is in direct charge of excise matters in the district excluding the Siliguri subdivision and some parts of Kalimpong and Kurseong subdivisions. He has under him three Junior Superintendents, twenty-five Inspectors, three Sub-Inspectors and the usual quota of clerical and Class IV staff.

The Senior Superintendent of Siliguri Circle is in direct charge of excise matters in Siliguri subdivision and some parts of Kurseong and Kalimpong subdivisions. There are three more Superintendents, one each at New Jalpaiguri, Siliguri town and Naksalbari. The Senior Superintendent has under him eleven Inspectors, eleven Sub-Inspectors and the usual contingent of office staff.

¹ Source : The District Veterinary Officer, Darjiling.

² Source : Controller of Weights & Measures, West Bengal.

The Assistant Collector of Land Customs at Siliguri looks after land customs administration in North Bengal along with the district of Purnea in Bihar. He has under him two Superintendents, one at Kalimpong and the other at Siliguri, fifteen Inspectors, twelve Sub-Inspectors and a number of Class III and Class IV staff.

The establishment expenditures of the aforesaid offices during 1966-67 were as follows :¹

Office of	Establishment expenditure for 1966-67 (in Rs.)
Deputy Collector, Central Excise and Land Customs	68,540
Assistant Collector, Central Excise	1,35,083
Assistant Collector, Land Customs	2,25,000
Superintendent, Central Excise, Darjiling	2,80,564
Superintendent, Central Excise, Siliguri	1,62,561
Total	8,71,748

There are three Income Tax Circle Offices in the district, one at Darjiling, the second at Siliguri and the third, known as the Project Circle, North Bengal, at Siliguri. They look after assessment and collection of Income Tax, Wealth Tax, Gift Tax and Expenditure Tax under respective enactments. The Darjiling Circle is manned by two Income Tax Officers, two Inspectors and some superior and inferior staff. The establishment expenditure of this set-up for 1966-67 was Rs. 1,10,208.

Income Tax

The Siliguri Circle Office is manned by two Income Tax Officers, two Inspectors and the usual complement of superior and inferior staff. The establishment expenditure of this unit during 1966-67 was Rs. 98,690.

The North Bengal Project Circle Office at Siliguri has an Inspector and a few Class III and Class IV personnel. The establishment expenditure of this unit for 1966-67 was Rs. 19,525.²

¹ Source : The Deputy Collector of Central Excise & Land Customs, Siliguri.

² Source : Commissioner of Income Tax, West Bengal.

National Savings

Promotion of national savings is the responsibility of an Assistant Regional Director who has his headquarters at Siliguri and holds jurisdiction over all the districts of North Bengal. For the Darjiling district he has under him two District Organizers, one at Darjiling and the other at Siliguri besides the usual complement of office staff. His establishment expenditure during 1966-67 was Rs. 25,487.¹

Postal Services

A Superintendent of Post Offices is in charge of postal administration in the district. He is assisted by a Higher Selection Grade Post Master and twenty Lower Selection Grade Officers and 198 Time-scale Clerks including Sub-post Masters, Town Inspectors, Accountants etc. Extra-Departmental Branch Postmasters number 79, Extra-Departmental Sub-Postmaster only one while other Extra-Departmental staff 129. Besides the usual clerical staff, there are 174 Postmen and 135 members of inferior staff. The establishment expenditure for this set-up in 1966-67 was Rs. 12,15,825 and Rs. 26,225 for the Sikkim Division.

The different engineering wings of Darjiling Postal Division employed during 1966-67, three Class I, fourteen Class II, 598 Class III, and 98 Class IV staff for whom an establishment expenditure of Rs. 14,08,659 was incurred during the same year.²

Autonomous Bodies**Food Corporation of India**

A District Manager of the Food Corporation of India, posted at Jalpaiguri, looks after operations in Darjiling and Jalpaiguri districts. His set-up consists of an Assistant Accounts Officer, a Depot Superintendent in charge of receipt, storage and delivery of foodgrains at the Siliguri Depot, a Motor Transport Officer, an Area Foreman to maintain the fleet of vehicles at Siliguri Garage assisted by six mechanics, two fitters and eighteen drivers, forty-six Quality Inspectors with executive duties and godown duties and seventeen assistants for office work. There is besides a large number of inferior staff. The establishment expenditure of this unit for 1966-67 was Rs. 55,344.³

Life Insurance Corporation of India

The Siliguri branch of the Life Insurance Corporation of India was inaugurated on 1 September 1956 and holds jurisdiction over the Siliguri subdivision and the areas covered by the Simulbari, Marianbari, Rohini and Long View tea estates in the Kurseong subdivision. It is headed by a Branch Manager who is assisted by two Assistant Branch Managers for administrative and development work respectively. There are also fifteen Field Workers and the usual complement of clerical and inferior staff. The establishment expenditure for this set up was Rs. 5,34,032 in 1966-67. The

¹ Source : Regional Director, National Savings, West Bengal.

² Source : The Assistant Director of Postal Services (Establishment), West Bengal Circle.

³ Source : Officer on Special Duty, Food Corporation of India, Calcutta.

Darjiling branch of the L. I. C. was opened on 1 November 1962 with jurisdiction over the Sadar, Kalimpong and Kurseong subdivisions, excluding the areas covered by the aforesaid tea estates in the latter subdivision. It is headed by an Assistant Branch Manager who has under him six Field Workers and the usual complement of clerical and inferior staff. The establishment expenditure of this unit for 1966-67 was Rs. 2,16,134.¹

The Siliguri Planning Organization is headed by a Director who is a member of the Indian Administrative Service. In the discharge of his technical duties, he is assisted by a Senior Planner responsible for the preparation of the physical and economic plan for the project area, an Associate Planner who conducts surveys and prepares the base maps and land-use maps besides helping the Senior Planner in the formulation of physical plan proposals. Two Assistant Planners look after the collection of data for industry, trade and commerce and draw up the draft reports on the economic development of the area while a Research Officer prepares the demographic reports. There is an Executive Engineer to plan and draw contour maps, fix the alignments of proposed roads and prepare detailed project reports on water supply, drainage, sanitation etc. Besides helping the Senior Planner in the formulation of the Master Plan, the Engineer Planner also works for the future development of the region. These technical officers are assisted by a band of non-Gazetted technical staff in addition to the usual clerical hands. The expenditure incurred by this unit in 1966-67 for project and survey was Rs. 2,19,362.²

The Siliguri
Planning Organi-
zation

The State Bank of India runs four branches in the district at Darjiling, Siliguri, Kurseong and Kalimpong. Their particulars are given in the table below³

State Bank of India

	Darjiling	Siliguri	Kurseong	Kalimpong
Date of inaugura- tion	18 August 1923	24 October 1957	28 February 1958	7 May 1962
Jurisdiction	Darjiling subdivi- sion	Siliguri subdivi- sion and also parts of Purnea and Jalpaiguri districts	Kurseong subdivi- sion	Kalimpong subdivi- sion
Establishment expenditure for 1966-67	Rs. 2,58,167	Rs. 3,20,018	Rs. 1,08,725	Rs. 94,821

¹ Source : Zonal Manager, Life Insurance Corporation of India, Calcutta.

² Source : Director, Siliguri Planning Organization.

³ Source : State Bank of India, Calcutta.

Each of the branches is under an Agent who has under him the requisite number of accounting, clerical and inferior personnel.

West Bengal
State Electricity
Board

Two Assistant Engineers of the West Bengal State Electricity Board, stationed at Siliguri and Kurseong, look after the distribution of energy to consumers in the district. Another Assistant Engineer, who is in charge of the Ghum subdivision, supervises the supply stations at Sukhiapokhri, Sonada, Bijanbari, Pulbazar, Takdah and the power station at Bijanbari. The fourth Assistant Engineer is in charge of the generation station at Fazi. Technical and non-technical assistants in the establishment number 175 while 55 persons are on the inferior staff. During 1966-67 the establishment expenditure for this set-up amounted to Rs. 5,62,180 (approximately).¹



¹ Source : Divisional Engineer, Siliguri, West Bengal State Electricity Board.

CHAPTER IX

REVENUE ADMINISTRATION

The history of land revenue administration in the district is necessarily linked with the settlement of the hill tracts by immigrants and the development of the region following the cession of certain tracts by the Sikkim Raja to the East India Company. In 1835 the Raja of Sikkim ceded 138 sq. miles of territory to the Company against payment of an annual allowance of Rs. 3,000. But the revenues from the ceded areas did not amount to more than a mere Rs. 20 for the first few years. Naturally enough the Company's administration wanted to raise the revenue at least to the extent of what it was paying as allowance to the Raja of Sikkim, and, if possible, to raise it beyond that amount as the development of the newly acquired area needed progressively increasing financial investments.

LAND REVENUE

History of land revenue assessment and management

The history of the creation of the main types of tenures obtaining in the hill areas of the district should be discussed at the outset, since the basic features of the land system of Darjiling are different from those prevailing elsewhere in West Bengal. First, the cultivated lands are divided into tea and non-tea areas. Secondly, most of the latter falls under the category of Khas Mahal and, prior to the coming into force of the Estates Acquisition Act, there was only one strip of land consisting of 4 permanently settled estates (bearing Touzi Nos. 951, 1,116, 1,117 and 1,118) at the extreme north of the district. Since the Touzis in the district are the units of revenue collection, the history of these permanently settled estates is of special interest. The north-western portion of the district between Nepal, Sikkim and the Little Rangit river was annexed by the British from the Raja of Sikkim in 1850 and leased out to Chebu Lama for a period of 3 years on an annual rent of Rs. 20. Subsequently, the Government made a grant of the land in proprietary right to him and his heirs for ever, subject to the annual payment of a land revenue to Government of Rs. 500 during his life-time and Rs. 1,000 by his heirs after his death.¹ In 1882-83 a part of the estate consisting of the forests of the Singalila Range and covering an area of 42,382 acres was sold to the Forest Department. Another part was escheated to Government and came to form a Khas Mahal, called Relling Government Estate, in 1924. For default in the payment of Government revenue, another part was also resumed by Government in 1901 and became a Khas Mahal, known as the Samabong (Kolbong) Estate. The remaining portion formed the only 4 permanently settled estates before the Estates Acquisition Act came into force.

Permanently settled lands

¹ L.S.S.O'Malley—*Bengal District Gazetteers : Darjeeling*; Calcutta, 1907; p. 148.

Tea estates

Another important source of land revenue is the tea estates, which are assessed at the rate of Rs. 1.50 per acre in the hills and Rs. 2 per acre in the Terai. Leases and renewals are granted for terms of 30 years with the right of renewal for similar periods. The rights conferred are heritable and transferable, but transfers have to be registered and part-transfers are valid only with the previous sanction of the Deputy Commissioner. *Jote* lands in the Terai held on 20-year leases are purchased from time to time by holders of 30-year tea leases and lands so purchased are renewed on 30-year lease terms.¹

The history of tea plantations in the district goes back to the year 1834, when Lord William Bentinck appointed a committee to advise on the introduction of tea cultivation in India. Tea leases are granted and renewed under the provisions of the *Bengal Waste Land Manual*. Some of the important provisions governing these leases are : (i) that the lessee should pay the rents in time; (ii) that the lessee or his manager should reside on or near the land; (iii) that the lessee should not divert the flow of any stream or spring within the land without the previous sanction of the Deputy Commissioner; (iv) that the lessee shall not set up any new market or *hat* without the permission of the Deputy Commissioner; (v) that the lessee shall erect and maintain boundary marks and lines; (vi) that the lessee shall furnish to the Deputy Commissioner full information about births and deaths within his area; (vii) that the lessee shall not sublet the land; and (viii) that the rights conferred by the lease is heritable and transferable with the previous approval of the Deputy Commissioner. There is also a provision that in special circumstances a summary renewal for a period of one year may be granted.²

Khas Mahals

The bulk of the revenue-paying non-tea estates in the district are grouped under the following categories : (i) the Sadar Kurseong Khas Mahal, (ii) the Kalimpong Development Area and Kalimpong Government Estates, and (iii) the Terai Khas Mahal,—the first consisting of the following estates :³

No.	Name of Estate	Touzi No.
1.	West Tista Khas Mahal	95 & 1,006
2.	Relling Estate (Khas Mahal)	26
3.	Hill Cart Road Reserve Land	96 & 1,017
4.	Samabong (Kolbong) Estate (Khas Mahal)	932
5.	Hope Town Lot No. 82	1,064
6.	Darjiling Town Khas Mahal	1,079
7.	Location Lease	1,121

¹ A. J. Dash—*op. cit.*, p. 208.

² Source : Settlement Charge Officer, Darjiling.

³ Source : Settlement Charge Officer, Darjiling.

In these Khas Mahals (except Darjiling Town Khas Mahal), the area is divided for fiscal purposes into 'blocks' which are approximately equivalent to villages as defined in the Bengal Tenancy Act (1885), with the difference that they have nowhere been defined as villages, since the Bengal Tenancy Act is not in force in the district. Each of these 'blocks' is under a *mandal* who collects rents from the tenants on a commission basis.¹

The West Tista Khas Mahals (Touzi Nos. 95 and 1006) originally consisted of 14 mahals and now are arranged in 27 blocks and two bazars. The blocks are scattered and all lie in the tract to the west of the Tista. Their total area is about 15,000 acres or 23 sq. miles and they extend from Mirik in the Balasan valley close to the Nepal frontier to Lopchu and Mungwa in the Tista Valley.

The West Tista
Khas Mahal

The early settlements of revenue were with individual farmers who were made responsible for the revenue fixed in lump on the block or blocks leased to each of them. The first regular settlement of these *Mahals* appears to have been made in 1884. The system then adopted has come to be known as the joint, *raiyyatari* system, by which settlement was made jointly with the *mandal* and tenants of each block. This 1884 settlement was for a term of 10 years. Under it, blocks were divided into three classes with different rates of revenue : *raiyyats* had a nominal right of occupancy but in fact they were entirely at the mercy of *mandals*, who could oust them at pleasure. The *mandals* were given a commission of 10 per cent on the revenue demand, and they enjoyed the right and profit of settling waste lands. While this system proved successful as far as the conclusion of leases was concerned, it was otherwise unsatisfactory because *mandals* realized as much as they could from *raiyyats* and looked to their own interest and not to that of Government or of the *raiyyats*.

In the settlement of 1894, the joint *raiyyatari* system was given up. Blocks were now divided into three classes according to the quality of the soil predominating in each and settlement was made direct with each *raiyyat*, who was given a separate lease for his holding. Lands were reserved for grazing. Persons found to have been in occupation for 12 years or more were regarded as *raiyyats* having rights of occupancy. Subletting was forbidden and *raiyyats* found holding under other *raiyyats* were regarded as under Government whenever they had acquired a right to compensation for disturbance. As in earlier settlements, the *mandal's* commission was fixed at 10 per cent of the gross demand, but the power of granting new settlements was taken from him. To compensate for the low income of some *mandals*, either two blocks were amalgamated or the *mandal's* own lands were allowed

¹ Source : Settlement Charge Officer Darjiling.

to be held rent-free. A third settlement was made in 1907-08 and a fourth in 1920-22. In the third settlement, Government ordered replacement of the block rates by soil rates. In the fourth settlement, the system of soil classification was made more elaborate and several new classes were added. *Mandals* no longer hold any land rent-free and their commission is 10 per cent—not on gross demand but on gross collections.

The Relling &
Samabong
(Kolbong) Estates

The first settlement of the Relling Estate (Touzi No. 26) was made in 1925-28, when it contained 19,500 acres of land, of which 13,233 acres was cultivated. The settlement continued in force till 1948.¹ The Samabong (Kolbong) estate (Touzi No. 952) was resumed in 1909 and brought under regular settlement for the first time in 1914, its area at the time being 1,845 acres, of which 1,219 acres was cultivated. The second settlement was made in 1925-28, which continued till 1948.²

Hill Cart Road
Reserve Land &
Location Lease

Touzis No. 96 and 1017 comprise Hill Cart Road reserve lands consisting of strips measuring more or less 63 feet wide on either side of the road, acquired for the purpose of widening or repairing it in future. The land is let out to tenants on a year-to-year basis with no right of occupancy. No pucca structures are allowed to be built on such land. The Executive Engineer, P. W. (Roads) Department, Darjiling is consulted in the management of these lands. The reserve lands outside the Darjiling Municipality are recorded under Touzi No. 96, the receipts from which are first credited to Land Revenue and then transferred to the Public Works Department. Likewise, the lands within the Municipality are under Touzi No. 1017, the receipts being first credited to Land Revenue and then transferred to the municipality. Touzi No. 1121 was created in 1939 out of the 14 'locations' lying along the Hill Cart Road but beyond the 63-feet limit. Here also, no lease is granted and the tenants hold their lands on a yearly basis.³

The Town Khas
Mahal

Touzi No. 1079 is described as the Town Khas Mahal and includes all Khas Mahal lands within the town of Darjiling other than the Cart Road lands or those leased out for the cultivation of tea. The revenue of the Town Khas Mahal has been assigned to the Darjiling Municipality. The tenure of the various leases under this Touzi varies from 1 to 99 years.⁴

During the early years of the growth of Darjiling town, funds were needed for making arrangements for conservancy, communications and other amenities, for which the Government of India

¹ Report of the Settlement Charge Officer Darjiling; & A. J. Dash—*op. cit.*, p. 213.

² *loc. cit.* (A history of the management of these two estates is given later.)

³ Report of the Settlement Charge Officer, Darjiling.

⁴ Report of the Settlement Charge Officer, Darjiling.

ordered in 1838 that "the quit rents paid by the settlers in the ceded portion of Darjiling should be appropriated to a fund to be called the 'Location Fund' and employed for conservancy and for purposes of local improvement." To this Fund were later added the rents of the bazars and of shops erected on public lands. This Fund was managed by a Committee until 1850, when, on the establishment of the Darjiling Municipality under Act XXVI of 1850, it took over its administration. In 1879 the municipality claimed proprietary rights over location lands and the Government of India decided that "the municipality should continue to benefit by the quit rents reserved upon location sites within its limits, but that they were authorised to grant leases at such rates and for such terms only as Government might from time to time approve, and that the municipality should have full proprietary rights over an area of about 44 acres comprising the Central Bazar and the 'Native Town', on condition that they claimed no proprietary rights over certain sites within that area held by Government or over any locations which might have been granted up to that date in fee-simple within their limits and that government should be entitled to take up such other sites as might be required from time to time for public purposes on payment only of a fair rent to be assessed by Government in each case." The municipality, therefore, came to exercise proprietary rights over the 44 acres of bazar land and continued to collect rents from all the locations within its limits, though proprietary rights over such lands remained with Government. The Municipality manages this property of 44 acres and has spent large sums on constructions from which a sizeable part of its revenue is derived. According to a Government order issued in August 1880, some small scattered plots of unassessed Government lands within the 44-acre block were formed into a separate estate bearing Touzi No. 1113, which is managed by the Touzi Department and not by the Sadar Kurseong Khas Mahal Department, while the rents accruing from it are not assignable to the municipality but are credited to Government as land revenue.

In September 1911, the Board of Revenue, Bengal decided : "that the locations, the rents of which had been assigned to the Darjeeling Municipality, should be brought on the Touzi Roll and that the rents should, in the first instance, be collected by Government and then made over to the municipality in a lump sum after deducting collection charges. Nothing was specifically mentioned in that order about Government lands in Bhutia Basti or those at Ghum and Jorebungalow : consequently these last two properties remained under the control of the municipality. After locations had been brought on the Touzi Roll, difficulties about the application of Act X of 1859 arose because some of the leases had been granted by the municipality and the rents could not, therefore, be treated as revenue. To meet these difficulties, Government, in...July 1914, withdrew the power to grant leases from the municipality. Certain lease-holders were directed to get their

leases renewed by Government and their locations were then brought on the Touzi Roll as ordered by the Board In 1911. Touzi No. 1079 was created in 1919 when all rent-paying locations within the municipality managed by Government were ordered by the Board to be brought under one Touzi. The revenue collected, less collection charges, is paid to the municipality after the close of each financial year.

The lands in Bhutia Basti are not locations but belong to Government. They lie outside the 44 acres but within the limits over which the municipality's control and management have been recognised by Government. All tenants are tenants-at-will with whom settlements were made by the municipality subject to Government's approval. Government maintained their proprietary rights over this area but allowed the rents to be enjoyed by the municipality. In their letter of the 30th August 1933, Government ordered that the municipality should settle no further land in Bhutia Basti and that this area should be treated as part of the Town Khas Mahal, the income being paid to the municipality as for other Town Khas Mahals. Management was, accordingly, transferred from the municipality to Government with effect from the 1st April 1933 and the area now forms part of Touzi No. 1079.

The municipal grazing lands and the Ghum-pahar Jorebungalow lands (bazar and grazing), which include lands at Bhanjang (a *basti* at Ghum) and Batasia, are also Government lands over which the municipality's control was recognised by an order of 20th October 1890. The control was subject to a condition that the rates of rent and conditions of letting such lands would be approved by Government. The municipality has accordingly been settling lands with tenants (tenants-at-will) on approved terms. Two hundred and eighty acres were resumed by Government for settlement with Mr. Edward Keventer in 1919 and Subedar Bhagiman Limbu in 1921. The rest of the 280 acres was surrendered to Government who settle it with tenants and pay the rents to the municipality as part of Touzi No. 1079. The balance of these grazing lands (622 acres less 280 acres) is managed by the municipality : it receives from them an annual income of about Rs. 7,000.¹

Land for the development of Kalimpong was acquired in 1919, on which parts of the township were gradually built up. Settlement of land within the Development Area (Touzi No. 1080) was made with people from all parts of the country.

Kalimpong Government Estates have an area of about 173 sq. miles, divided into 50 blocks, and bearing Touzi No. 93. The first settlement of the Kalimpong Government Estates was

¹ A. J. Dash—*op. cit.*, p. 218.

made in 1882, the next in 1901 and the latest in 1921. The main types of lands comprising this Khas Mahal are (i) cardamom land, (ii) *panikhet*, (iii) *sukhakhet*, (iv) old fallow, (v) new fallow, (vi) unculturable land and (vii) culturable land. The rates of rent per acre obtaining under the 1921 settlement were Rs. 10 for cardamom land, between 10 annas and Re. 1/12 for *panikhet*, between 9 annas and Re. 1/8 for *sukhakhet* and 3 to 4 annas for waste land.¹ It may be noted that the rates given here correspond to those of the Relling Estate mentioned earlier. Here as elsewhere in the hill Khas Mahals, the revenue is collected by the *mandals*. Besides these revenue paying estates, there are revenue-free estates held by private parties as well as by public bodies like the Forest Department, the Cinchona Directorate, the District Board, the P. W. Department, the railways and the municipalities.² A later description of both the Kalimpong Development Area and the Kalimpong Government Estate occurs in Dash's *Darjeeling District Gazetteer* published in 1947.

The Kalimpong Government Estate (Touzi No. 93) has an area of 172.98 sq. miles. As it was part of the Kalimpong subdivision, the system of collection of poll tax through *mandals* was allowed to continue in this estate, the receipts amounting to Rs. 640 in 1865. According to Dash : "Large areas were reserved as Government forests and practically the whole of the rest of the area was administered as a Government estate, Government dealing with tenants direct. Immigration from Nepal and Sikkim was considerable and by 1882 when the first survey and settlement of the most developed portion of the estate was carried out, the receipts from the poll tax had risen to Rs. 11,800. Population was then 12,683. Most of the immigrants were Nepalis who took the lead in developing agriculture by ploughing, —a method which displaced the less efficient one of *jhum* cultivation formerly practised by the original inhabitants.

"The 1882 settlement fixed block rates. The surveyed area was divided into 25 blocks : in the more fertile blocks, revenue was assessed at 8 annas per acre and in the less productive blocks at 4 annas. The annual demand thus based totalled Rs. 8,260 which replaced a poll tax of Rs. 10,313 for this area. The poll tax of Rs. 1,487 continued in the unsurveyed area. A fresh settlement was made in 1892. The rate of rent was increased by 50 per cent. in all blocks except six and cardamom lands were separately measured and assessed at a special rate of Rs. 10 per acre. Population had increased to 26,631 and the area cultivated had increased. The annual demand in the surveyed area rose to Rs. 16,499. Increase in population in the unsurveyed area brought the annual demand on account of poll tax to Rs. 4,461 and the total demand of

¹ Source : Settlement Charge Officer, Darjiling.

² Report of the Settlement Charge Officer, Darjiling.

the estate thus amounted to Rs. 20,960 in 1892-93. The surveyed area assessed to revenue had risen from 26,990 to 32,592. The population of the estate had risen to 36,164 in 1901 when a fresh settlement took place. Poll tax was entirely surveyed instead of by the former plane table method. The previous method of fixing a uniform rate applicable to all land within a block was abandoned and rents were fixed on a classification of land. There were four classes of land, viz., cardamom, *panikhet*, *sukhaket*, and waste and blocks were put into five groups according to fertility, rates of rent being fixed for each class of land in every group. This settlement raised the annual demand from the previously surveyed area to Rs. 23,041 and assessed Rs. 8,548 on the previously unsurveyed area for which the poll tax had been Rs. 9,611. The total annual demand was thus Rs. 31,589 for a cultivated area of 53,349 acres (33,809 acres in the previously surveyed area and 19,540 acres in the unsurveyed area). There were now 48 blocks in the estate. The most recent settlement took effect from 1921 and was to be current for 15 years instead of 10 years as had been the term of previous settlements. Population had increased to 41,203 and the total area assessed was 63,119 acres : there was no enhancement on the rate for cardamom lands but on the ground that prices of produce had increased, rates of revenue on other classes of land were increased : on paddy (*panikhet*) lands 25 per cent to 31 per cent, on *sukhaket* from 50 per cent to 60 per cent and on waste lands from 33 per cent to 50 per cent. The total annual demand thus rose to Rs. 59,620."¹

With the expiry of the period of settlement in April 1936, the old leases were renewed till a fresh settlement could be made. On account of an increase in paddy and cardamom cultivation, three new blocks, namely, Kaffergaon, Lolaygaon and Rechila, were opened after the 1921 settlement and the annual rent increased to Rs. 63,806. As the total area under assessment was 63,727 acres, divided into 10,608 tenancies, the average size of a holding was 6 acres and the average rate of rent, Re. 1 per acre.

Administration of
the Hill Khas
Mahals

A description of the nature and type of administration obtaining more or less uniformly in the four Hill Khas Mahals, namely, the Relling Estate, the Samabong (Kolbong) Estate, and the West Tista Khas Mahals and the Kalimpong Government Estate, has been given by Dash in an integrated manner in the Darjeeling District Gazetteer of 1947, from which a quotation would be worth while. "The rights and obligations of tenants are regulated by Act X of 1859 and the terms of the leases granted to the tenants. Settlements of land revenue are made under Act VIII of 1879 and it will be noticed that the Bengal Tenancy Act does not apply to the areas or indeed to any part of the District. Under Act

¹ *ibid.*, pp. 219f.

X of 1859 a tenant gets a heritable right of occupancy in any land held by him for 12 years. Tenants have no right to transfer or sublet lands held by them without the permission of the Deputy Commissioner under pain of fine or cancellation of their leases. Transfers or subletting by hillmen to plainsmen are usually not permitted by the Deputy Commissioner nor does he usually permit Lepchas or Bhutias to transfer or sublet lands to Nepalis. The *raiya*'s lease can be determined for any breach of its terms, the most important of which are the terms rendering his holding liable for sale in default of payment of rent on due date. Particular forms of cultivation, viz., wet cultivation or cardamom cultivation, may be prohibited by the Deputy Commissioner and the tenant is also required to supply provisions and coolies at market rates when so ordered by duly authorised officers. Certain lands have been granted rent-free in the Kalimpong Khas Mahal for the maintenance of monasteries or *mandals* and tenants in this estate have rights to graze cattle on, and collect fuel from, the 7,000 odd acres of grazing reserve lands (*gorucharan*) which form part of the estate. . Unauthorised subletting is common and difficult to check. As a result of subletting by absentee or *bhadralok* tenants three classes of under-*raiya* are found on the Kalimpong Government Estate : (1) *Pakhurias* who pay a fixed cash rent to the tenant of the land, (2) *kuthdars* who pay a fixed produce rent and (3) *adhiars* or half crop under-*raiya*s. They are all legally tenants-at-will and liable to summary eviction but there have been instances where *pakhurias* have successfully resisted ejectment in the courts. Rates of rent for these under-tenants are high and the Settlement Officer in 1921 found that *pakhurias* paid considerably more than the rent fixed by Government, that *kuthdars* paid over 12 times the Government rent and *adhiars* still more.

सयमेव जयते

“Government is the proprietor of these estates and there is no private landlord or tenure-holder between Government and the *raiya* who is usually the tiller of the soil. The estates are divided into blocks in each of which is a *mandal* or headman. The *mandals* are the direct representatives of Government on the estate and it is their duty to collect the rent due from the *raiya*s in their blocks and remit it to the treasury, to report all transfers of land, to ensure that *raiya*s provide labour and provisions as required, to prevent improper or unauthorised felling of trees and to preserve grazing and waste lands. In return the *mandal* is given 10 per cent. on gross collections made by him. He is the acknowledged head of the community and arbitrates in all disputes except those relating to marriage, divorce and inheritance which are settled by *panchayats*. In the West Tista and Sadar Khas Mahals *mandals* no longer get rent-free lands or free grazing but in the Kalimpong Government Estate *mandals* still get free grazing and certain *mandals* continue to get rent-free lands although these are resumed whenever a *mandal* dies and his son is not appointed *mandal* in his place. The *mandali* system works on the whole very well...

"Transfers which increase the size of a holding above 20 acres or reduce it below 5 acres are not sanctioned."

The southern portion of Terai was at first attached to Purnea district, while the northern part came to Darjiling district. In both cases, the land revenue was settled for three years.¹

The Terai Khas
Mahals

The portion of Terai that went to Darjiling district had 544 *jotedars* or persons with whom the settlement was made. Although they renewed their *jotes* from year to year, they virtually held them on a hereditary basis which could not be changed. Under this settlement, the *chaudhuris* were allowed to take more than 10 per cent. of the collections as their remuneration, and rent-free grants for 5 years were made to them to encourage reclamation of forest lands.² In 1853 the cultivated portion of the Terai was resettled exclusively with *jotedars* for 10 years. There were at that time 595 *jotes* fetching an annual revenue of Rs. 30,330. In a resettlement in 1867, 808 *jotes* with an area of 1,15,137 acres were settled at an annual revenue of Rs. 35,041. Another settlement for 10 years took place in 1879 when the total annual revenue was fixed at Rs. 79,518. In the 1897 settlement, which was valid for 20 years, the overall revenue was stepped up to Rs. 97,610 with cesses Rs. 22,079 and a one-anna cess of Rs. 6,102, the latter being abolished during the 1924 settlement. In 1897 there were 834 *jotes* exclusive of *hats*. In the next settlement of 1919-25 the area settled was 1,14,132.23 acres (178.3 sq. miles) at an annual revenue of Rs. 1,79,168. According to Dash, there were 860 *jotes* and 22 *hats* in 1925 which were not resettled thereafter. These areas and revenues did not include tea grants which were held at varying rates on 30-year leases. The average rate at which they were held at the time of the 1919-25 settlement was 6 annas per acre but as these grants became due for renewal, the revenue was assessed at the enhanced rate of Rs. 2 per acre with no legal restriction on further enhancement to Rs. 3 per acre making the rate equivalent to that charged for the best agricultural lands.

The Settlement Report of the Darjiling Terai (1919-25) mentioned that the *jotes* were originally let out to be brought under cultivation by the lessees themselves or by their tenants. But at a later stage Marwaris, pleaders, merchants, speculators and others made their appearance in this field and bought up many of the *jotes*. The number of *jotes* and grants also increased with the subdivision of the existing ones, reclamation of waste lands and conversion of service grants etc. into ordinary agricultural *jotes*. Land-grabbing by speculators became rampant and this was accelerated by the settlement of land under the old Waste Land Rules for tea cultivation. The original settlers of the soil were

¹ *ibid.*, p. 227.

² *loc. cit.*

gradually pushed out by the rich and influential immigrants who were mere receivers of rent and the tenants holding under them were the actual tillers of the soil. Middlemen holding between the *jotedar* and the actual cultivator were many, namely *thiccadar*, *dar-thiccadars*, *daradar-thiccadars*, *nimdaradar-thiccadars* and so on down to the fifth or sixth degree till the actual cultivator was reached. *Jotedars* having cultivated lands in their direct possession often employed *adhiars* to cultivate them.¹

The Darjiling Improvement Fund is a rather unique institution of the district. It derives its income from various sources within the district, and spends it on welfare projects also exclusively within the district.

Darjiling Improve-
ment Fund

The early history of the fund is quite interesting. In 1838, the Government of India directed that the quit rents paid by the settlers in the district should be appropriated to a fund called the Location Fund which was to be employed for the purpose of conservancy measures and for local improvement. By an order issued in 1864, the Darjiling Improvement Fund was created to which was to be credited all incomes from quit rents, communication money, purchase money of waste lands and receipts from Ghum Pahar Forest. Later on, other sources of income were added to it, namely location rent, rent from farming leases, lease of ferries, profits from *hats* and rents from Government *hats* and bazars and receipts from the Rangiroon river.

The activities of the institution are also numerous. In the beginning, it was decided that its income should be spent for the maintenance and improvement of *hats*, ferries, bungalows and dispensaries; for training nurses and veterinary staff; for promoting primary education; for developing rural water supply and for making grants-in-aid to various institutions. With the establishment of the District Board in 1922, most of these functions were taken over by the latter and the Fund now makes an annual grant of money to it.² The D.I. Fund, however, manages the *hats* or bazars at Sukhiapokhri, Simana Basti, Pokhribong, Jorpokhri and Badamtam (all in the Sadar subdivision); the Old Kurseong Bazar and the Pankhabari *Hat* (in Kurseong subdivision); the Siliguri Bazar and the *hats* or bazars at Matigara, Baghdogra, Naksalbari, Batasi, Old Adhikari, New Adhikari, Kharibari, Ambari, Phansidewa, Tarabanda, Banderjhuli and Sivok (in Siliguri subdivision); and the bazars at Kalimpong, Algara, Pedong, Tista Bazar, Riyang, Chunabhatti, Git Dubling and Kagey (in Kalimpong subdivision). The fund also maintains dak bungalows at Senchal, Jorpokhri, Tanglu, Kalipokhri, Sandakphu,

¹ J. C. Mitra—*Final Report on the Survey and Settlement Operations in the Darjeeling Terai* : 1919-1925; Calcutta, 1927; p. 10.

² Report of the Settlement Charge Officer, Darjiling.

Subercum, Phalut, Pashok, all in the Sadar subdivision, and certain small areas, namely the Tiger Hill pavilion, the Ghum Rock, the Majdhura football ground in Sadar subdivision; Kurseong cutcherry compound in Kurseong subdivision; the Siliguri D.I. Fund office compound in Siliguri subdivision.¹

Present system of
survey, assessment
and collection of
land revenue

Before dealing with the present system of survey and settlement, it is necessary to examine briefly the record of the previous settlement operations in the district. The hill portion of the district, excluding the Kalimpong subdivision, was surveyed on the scale of one inch to a mile before 1850. Location sites in Darjiling and Kalimpong were mapped in 1848-52, the maps being on a scale $6\frac{3}{4}$ inches to a mile while the town of Darjiling was mapped on a scale of 20 inches to a mile.

During 1862-67, Johnson surveyed the entire district; Kalimpong was mapped on a scale of two inches to a mile and the rest of the hill area on a scale of four inches to a mile. The Hill Cart Road was surveyed on a scale of one inch to every 75 feet. The then Deputy Commissioner of Darjiling, however, considered Johnson's maps rather unsatisfactory and asked for a re-survey. During 1874-76, Gastrel, and later Sandiman, prepared fragmentary maps covering Darjiling Bazar on a scale of 32 inches to a mile. A few tea gardens were also surveyed on the scales of eight inches to a mile and 16 inches to a mile. During 1878-85, patch surveys were conducted by Harman, and then by Tanner.

In 1878-82, a survey was conducted by Messrs Paul, Ritchie, Slake and Marindin of the more developed portions of the Kalimpong subdivision. This Settlement was revised by Ritchie in 1891-92. In 1901, a cadastral survey of the whole of the subdivision was carried out by Charles Bell. The settlement operations in the subdivision in 1919 was conducted by Philpot.¹

Survey and settlement operations consist of four main stages, namely survey and mapping of the land, preparation of a Record of Rights, settlement of rents payable by tenants, and settlement of land revenues. The Revisional Settlement Operation, started in 1954-55, has completed its survey and maps have been prepared from the different land revenue settlement maps, tea garden maps (mostly prepared for the garden authorities by private firms) and the new traverse sheets. Its purpose is to help implement the Estates Acquisition Act and the preparation of a working basis for the introduction of proposed land reforms. The Estates Acquisition Act provides for Government's taking over all lands belonging to intermediaries, except in the case of certain classes of lands, in regard to some of which ceilings have been fixed limiting the area which can be retained by each

¹ Source :Settlement Charge Officer, Darjiling.

intermediary. It may, however, be mentioned that in the three hill subdivisions no such ceiling was imposed so far as agricultural land was concerned. The Estates Acquisition Act embodies rules for the assessment of rent of lands retained by the intermediaries as well as lands which have been held on service tenures or on payment of a produce rent. The same Act also provides for the assessment of compensation, on a prescribed scale, for the land resumed from each intermediary, separately, in respect of all his lands within West Bengal. This stipulation calls for, among other things, the determination of the rent received by each intermediary from the land taken over which had previously been sublet by him as also the valuation of those lands which had been held in *khas*.

Under the present Revisional Settlement Operations, the entire area of the district excepting reserved forests was recorded as 1202.37 sq. miles according to the Touzi Register. Three small blocks from the Duars area of the Jalpaiguri district, totalling 0.09 sq. miles, were added to the district in 1944. In 1959 approximately 57 sq. miles were transferred from the Purnea district to Darjiling. These newly acquired areas were at first included under the revisional settlement operations for Darjiling, but subsequently, for the sake of administrative convenience, they were taken up as a part of the Maldah-West Dinajpur settlement operation.¹ About 435 sq. miles of the district are accounted for by reserved forests and approximately 63 sq. miles are covered by the Mangpu Cinchona Plantation. The Munsong Cinchona Plantation and Rango Medicinal Plantation have not been included in the present settlement operations. The approximate total area of the district, with subdivisionwise break-up, etc., is shown in the table below.²

AREA OF DARJILING DISTRICT
(in sq. miles)

Subdivision	Tea Estates	Non-Tea Estates (including Khas Mahal & District Improvement Fund lands)	Total
Sadar	106.72	81.66	188.38
Kurseong	75.62	18.00	93.62
Kalimpong	11.55	171.61	183.16
Siliguri	91.00	137.82	228.82
Total	284.89	409.09	693.98

¹ The Settlement Charge Officer, Darjiling pointed out in his report that at this stage, no exact estimate of the area of the district could be furnished.

² Source : Settlement Charge Officer, Darjiling.

In the current settlement operations an elaborate classification of lands has been drawn up in which the differences between the various classes thereof have been adequately reflected. Sub-tenants are not recognized by Government in Khas Mahal areas and no transfer of land is valid without the written permission of the Deputy Commissioner of Darjiling. There is also a restriction on the transfer of lands held by members of Scheduled Tribes to others. In spite of this, such transfers have taken place in many cases and these have been separately recorded. Similarly, there is a considerable number of sub-tenancies in the Khas Mahal areas in spite of the prohibition against sub-letting. The cases of such subtenants—*adhiars*, *pakhurias* and *kuthdars*—have also been separately registered. There are also cases where tenants have encroached into adjacent, unsettled Khas Mahal lands. Where it was possible to locate and identify the encroachments, they were segregated and kept in the Deputy Commissioner's *khatian*, noting the names of the encroaching persons. Where this was not possible, the tenancy was made liable to enhancement of rent for the encroached portions.

With the purpose of examining certain cases coming under the scope of Section 6(3) of the Estates Acquisition Act in respect of tea gardens, the State Government appointed a Tea Garden Advisory Committee in which were included the Chairman of the Tea Board, the Secretary, Board of Revenue, and the Director of Land Records and Surveys, West Bengal. This Committee has made its recommendations to the Government regarding those lands which it thought should be resumed by the State and those which should be retained by the tea gardens.¹

**Payment of
compensation**

Up to 1967, the work of assessment and payment of compensation to ex-intermediaries had not made much progress. Till the end of that year, 3,496 Compensation Assessment Rolls involving Rs. 29,11,090.75 were prepared and published in a draft form, 390 ex-intermediaries were paid locally a total amount of Rs. 81,022.87 and 2,755 Compensation Assessment Rolls involving Rs. 24,12,967.13 were sent to the Collectorate for making final payments.

¹ Report of the Settlement Charge Officer, Darjiling.

The following is a table showing the land revenue demand and collection in the district for 12 years, from 1956-57 to 1967-68.¹

Collection of land revenue

DEMAND AND COLLECTION OF LAND REVENUE IN DARJILING DISTRICT

Year	Current demand of rent and cess Rs.	Collection (including arrears and mis- cellaneous collections) Rs.
1956-57	5,00,000	8,69,000
1957-58	9,61,832*	7,01,355
1958-59	9,90,331	6,78,008
1959-60	9,90,331	11,74,259
1960-61	11,53,625	11,95,586
1961-62	11,57,143	10,33,831
1962-63	11,65,975	13,59,952
1963-64	11,40,133	13,12,010
1964-65	12,19,731	13,32,613
1965-66	28,13,441*	10,11,137
1966-67	28,40,941*	96,960
1967-68	29,13,027*	8,31,207

*including arrears

The rights and obligations of tenants in Darjiling district are regulated by Act X of 1859 (the Bengal Rent Act, 1859) and the Bengal Tenancy Act does not apply here. The settlement of land revenue is made under Act VIII of 1859 (the Bengal Rent Settlement Act, 1879). The distinguishing feature of the land tenure system of the district is that Government is the proprietor of all estates and there is, theoretically, no private landlord or tenure holder between it and the ryots who are the tillers of the soil. Under Act X of 1859 the tenant gets a heritable right of occupancy in any land held by him for twelve years or more. But he has no right to transfer or sublet his land without the permission of the Deputy Commissioner. Transfer of land or subletting by hillmen to plainsmen is not usually encouraged, nor is it usual to allow Lepchas or Bhutias to transfer or sublet their lands to Nepalis.

LAND REFORMS


Land relations and recent agrarian movements

Although Government is the proprietor of all lands and no intermediaries are supposed to exist between the State and the cultivators, in actual practice unauthorized subletting, which is prohibited by law, is fairly common. In the hill subdivisions, especially in Kalimpong, three classes of under-tenants are found to exist, namely, *Pakhurias*, who pay a cash rent to the tenant of the land, *Kuthdars*, who pay fixed produce rents, and *Adhiars*,

¹ Source : Records of the Board of Revenue, West Bengal.

a class of under-ryots who get half the crop.¹ The Pakhurias, being tenants-at-will, are virtually landless labourers. By the way, a scheme was drawn up in 1951 by the then S.D.O. of Kalimpong for allotting some Khasmahal land to every such family, and that was the first scheme, in West Bengal, of *Land for the Landless*.²

In Siliguri subdivision, the position is a little more complex owing partly to the recent agrarian disturbances that took place in certain localities there. It has been noted earlier that land was held in *jotes* in that subdivision (the *jotedars* having a theoretical *ryoti* status and rights) and that subletting grew in that part of the district giving rise to a crop of under-tenants. The number of tenants in the Siliguri subdivision officially recognized by the Land Reforms Committee operating there was 13,229 in 1967. The break-up of their holdings according to various sizes is shown in the following statement.³



Size of holding	No. of tenants	Col. 2 as percentage of total no. of tenants
Tenants holding up to 1 acre	3,874	29.2
Tenants holding from 1 to 3 acres	3,120	23.6
Tenants holding from 3 to 5 acres	2,215	16.8
Tenants holding from 5 to 10 acres	2,135	16.1
Tenants holding from 10 to 15 acres	818	6.2
Tenants holding from 15 to 25 acres	786	6.0
Tenants holding above 25 acres	281	2.1
Total	13,229	

¹ Source : Settlement Charge Officer, Darjiling.

² This scheme is available in the S.D.O., Kalimpong's Office, in the office of the Deputy Commissioner, Darjiling as also of the Land & Land Revenue Dept., Govt. of West Bengal.

³ Source : Records of the Directorate of Land Records and Surveys, West Bengal.

Out of a total area of 228.82 sq. miles which came under the revisional settlement operations in Siliguri subdivision, a substantial portion is occupied by forests and tea gardens, the rest, as already indicated, being Khas Mahal estates. Before the Estate Acquisition Act came into force, there were 860 *jotedars* in this area whose holdings varied considerably as did their economic importance.

Before Independence, it was the intention of Government not to let intermediary interest in land grow in the Terai region. That is why, at a later stage, the Government decided to recognize only one class of under-ryots under the *jotedars*. The Settlement Report of the Darjiling Terai (1917-25), however, traced many classes of under-ryots that have actually come to exist. Another curious system which developed in course of time in this area was that many *thikadars* came to hold their lands under the superior ryots through an arrangement called *mukh-thika* or oral agreement. Such under-ryots had no way of proving that they had cultivated land under a *jotedar* and that is why their eviction was fairly common, since there was no means of legal redress. Moreover, since the *jotedars* did not in most cases keep any record of share-croppers working in their lands, there was no way of finding out which plots of land had been cultivated by them and over what period of time.

The economic problems of this area have been to a great extent accentuated by the increase of population in recent years, a large component of which was made up of migrants. This probably affected the employment potential of the tea gardens in the Terai. In the tea gardens it had been the common practice to let the labourers cultivate, on a share-cropping basis, such portion of the garden land as were not used for producing tea. But as some tea gardens habitually retrenched labourers each year, the latter lost the right of share-cropping as well as the right of residence within the gardens.

An agrarian disturbance broke out in the Naksalbari, Kharibari and Phansidewa police stations of the Siliguri subdivision in May-July 1967. Afterwards, the Government set up Land Reforms Committees in all the thanas of the subdivision. According to

Agrarian
disturbances

the review of work done by them up to 30 September 1967, a total of 465.27 acres of land was licensed, out of which a thanawise break-up is given below.¹

Name of police station	Area licensed out (in acres)	No. of persons benefited
Siliguri	43.12	35
Kharibari	123.66	89
Phansidewa	298.49	176
Naksalbari	Nil	Nil
Total	465.27	300

The total land settled since the formation of the Committees up to 30 September 1967 was 1,076.32 acres of which the thanawise break-up was as follows :

Name of police station	Area (in acres)	No. of persons benefited
Siliguri	142.10	138
Kharibari	361.82	256
Phansidewa	531.22	322
Naksalbari	4.18	41

As for the tea gardens, it has already been mentioned that a Tea Garden Advisory Committee was set up by the State Government to examine cases under Section 6(3) of the Estates Acquisition Act, especially in respect of tea gardens. So far as final Government orders passed on the recommendations of this Committee relate to tea gardens of the Siliguri subdivision, the position is given in the table in the Appendix.²

1-2 Source : Records of the Directorate of Land Records and Surveys, West Bengal.

In April 1968 a decision was taken by the State Government that landless agricultural labourers, share-croppers and small *ryots* holding below 2 acres of land were to be given throughout West Bengal ryotwari settlement of surplus vested lands that had been assigned to cultivators, subject to their eligibility in this behalf. This was naturally applicable to this area as well.

The *Bhoodan* movement has made some progress in the district, especially in the Siliguri subdivision, after—but not necessarily because of—the agrarian disturbance of 1967, although the relevant statistics are not available.

**BHOODAN
MOVEMENT**



APPENDIX
RESUMPTION OF TEA GARDEN LANDS IN SILIGURI
SUBDIVISION

No. of gardens —40
No. covered by final orders —31
Pending —9

	No. of tea gardens	Total area of tea gardens (in acres)	Land recommended for resumption by Advisory Committee (in acres)				Unfit for cultivation	Total
			Tea	Agri.	Non-Agri.	Forests		
Police Station								
Naksalbari	14	16,677.0	15.7	34.8	10.5	1,679.1	44.9	1,784.8
Siliguri	12	10,977.4	—	211.8	1.0	125.7	22.9	361.4
Kharibari	4	3,232.4	—	191.0	8.3	—	—	199.3
Phansidewa	10	12,758.6	—	19.2	35.1	74.2	6.8	135.3
Total	40	43,645.4	15.7	456.6	54.9	1,879.0	74.6	2,480.8

Lands allowed for retention by Advisory Committee
(in acres)

	Tea	Agri.	Non-Agri.	Forests	Unfit for cultivation	Total
Naksalbari	6,057.0	2,377.3	539.6	3,112.6	1,899.2	13,985.7
Siliguri	4,955.0	3,443.0	635.8	697.2	885.2	10,616.2
Kharibari	1,482.3	1,075.8	218.9	39.0	217.1	3,033.1
Phansidewa	5,862.2	3,567.7	931.5	953.0	1,309.3	12,623.7
Total	18,356.5	10,463.8	2,325.8	4,801.8	4,310.8	40,258.7

Lands finally resumed under Government Order (in acres)

	Agri.	Non-Agri.	Forests	unfit for cultivation	Total
Naksalbari	44.9	—	1,459.0	—	1,503.9
Siliguri	—	4.3	—	—	4.3
Kharibari	—	8.3	—	—	8.3
Phansidewa	—	35.1	—	—	35.1
Total	44.9	47.7	1,459.0	—	1,551.6

CHAPTER X

LAW AND ORDER, AND JUSTICE

Incidence of Crime

As would appear from the following pages, the district of Darjiling has a lower incidence of crime than what obtains in West Bengal as a whole. For a proper study of this subject, it would be worthwhile to trace a crime-map of the district based on data available from the middle of the last century. The following table indicates the incidence of crime in the district during the 3-year period from 1850-51 to 1852-53.¹

Year	Crime against the person	Crime against property unattended with aggravated circumstances	Crime against currency	Miscellaneous crimes	Total
1850-51	99	78	0	140	317
1851-52	124	103	0	148	375
1852-53	100	99	1	117	317

The table below gives details about the disposal of the crimes committed in the district during the same period.

	1850-51	1851-52	1852-53
No. of accused named or indicated	455	497	464
No. of persons brought before the Magistrates by summons or under arrest	344	465	377
No. of persons convicted	96	215	176
No. of persons acquitted or released	248	250	201
No. of persons complained against but not found	111	32	87

¹ W.A. Jackson—*Report on Darjeeling*, Calcutta, 1854, Appendix XV. Details of crimes for the year 1852-53 were as follows : (a) *offences against the person* : assaults with wounding-5 ; abduction-27 ; petty affray-57 ; child lifting-1 ; suspicion of murder turned out to be suicide-2 ; false impersonation-8 ; (b) *offences against property* unattended with aggravated circumstances ; burglary-4 ; cattle theft-22 ; theft under Rs. 300-4 ; thefts under Rs. 100-10 ; petty theft-46 ; suspicion of theft-2 ; attack and plundering houses-4 ; detaining cattle-3 ; arson, reported as such but not borne out by evidence-4 ; (c) *offences against currency* : counterfeiting coins-1 ; (d) *miscellaneous offences* : bribery-1 ; using abusive language and threatening-9 ; damaging crops-5 ; drunkenness and rioting-2 ; gambling-6 ; forcibly removing property-22 ; killing and maiming other persons' cattle—1 ; breach of contract by servants-15 ; taking goods from Beparis and not paying for them-1 ; not paying wages-7 ; neglect of duty and disobedience of order-2 ; fraud and embezzlement-3 ; trespass-19 ; other offences not included in the foregoing list-24.

For reviewing the crime position in the district in his time, Hunter collected elaborate statistics from the Inspector-General of Police and gave a detailed account of the various categories of cognizable and non-cognizable offences, the number of criminal cases instituted under each category and the number of persons tried and convicted during 1872.¹ Summarizing the figures marshalled by him, he said : "During the year 1872, 406 'cognizable' cases were reported to the police, of which 54 were discovered to be false. Convictions were obtained in 146 cases, or 41.47 per cent of the 'true' cases; the proportion of 'true' cases being 1 to every 269 of the population, and the proportion of cases which resulted in convictions being 1 to every 648 of the population. Of 'non-cognizable' cases 244 were instituted, in which 294 persons appeared before the courts; of whom 95 or 31.31 per cent were convicted, the proportion of persons convicted being 1 to every 996 of the population. ...Excluding the 54 false cases, the total number of cognizable and non-cognizable cases investigated in Darjeeling district in 1872 was 596, in which 645 persons were tried and 327 persons convicted; proportion of persons convicted to persons tried was 50.69 per cent, or one person convicted of an offence for every 289 of the District population."

Writing about civil and criminal justice in the old Darjiling Gazetteer of 1907, O'Malley stated : "The civil and criminal work of the district is, on the whole, very light. The hill people are seldom plaintiffs, as they are not litigious by nature. ...As regards criminal cases, the Nepalese, who constitute a large portion of the inhabitants, are remarkably law-abiding, and both they and the other hill races are very different from the plainsmen in having an inherent dislike for litigation. Heinous crimes are comparatively rare, and the commonest offences are those against the person, such as affrays, assaults and cases of wounding, which are common among a people of considerable courage, a keen sense of honour and a quick temper, with whom the *kukri* is the national weapon."² In the next Darjiling Gazetteer published in 1947, Dash observed that in 1944, 2,158 criminal cases were brought to trial; 206 sentences of imprisonment and 26 of whipping were passed and an amount of Rs. 20,000 was realised in fines. In his opinion, "the output of work of Stipendiary Magistrates has not altered much in the past 25 years."³

¹ W.W. Hunter—*Statistical Account of Darjeeling* ; London, 1876; pp. 183-85.

² L. S. S. O'Malley—*Bangal District Gazetteers : Darjeeling* ; Calcutta, 1907 ; pp. 162-63.

³ A. J. Dash—*Bengal District Gazetteers : Darjeeling* ; Alipore, 1947 ; p. 235.

The incidence of crime in the district during the sixties of the present century will be evident from the following table.¹

INCIDENCE OF CRIME IN DARJILING DISTRICT

VIS-A-VIS WEST BENGAL : 1963-66

Year	Dacoity		Burglary		Theft (excluding cattle theft)		Cattle theft		Murder		Sex crime	
	Darj.	W.B.	Darj.	W.B.	Darj.	W.B.	Darj.	W.B.	Darj.	W.B.	Darj.	W.B.
1963	21	664	156	11,067	402	19,644	32	930	17	446	9	735
1964	8	511	169	10,368	422	19,056	19	772	17	520	11	798
1965	9	543	118	9,438	395	19,259	12	704	10	432	6	751
1966	6	651	136	10,420	337	19,643	18	811	18	449	6	751

It has already been stated that the incidence of crime in Darjiling district is lighter than what obtains in the State as a whole.

Enforcement crimes

Enforcement crimes are of recent origin and they relate to the violation of the West Bengal Rice and Paddy Control Order, 1957, the Essential Commodities Act, 1955 and such other pieces of legislation enforced to control the prices of foodgrains etc., their movement and distribution. The table below gives absolute figures of enforcement offences in the district as also in West Bengal, together with ratios between the two from 1961 to 1966. These statistics would prove that such offences in the district are much below the State averages.

Year	Darjiling ²	West Bengal ³	Ratio per cent of col. 2 to col. 3
1961	355	30,400	1.17
1962	320	30,658	1.04
1963	181	31,015	.58
1964	210	22,983	.91
1965	152	48,522	.31
1966	367	34,621	1.06

¹ Source : Deputy Inspector General of Police (C.I.D.), West Bengal.

² Source : Superintendent of Police, Darjiling.

³ Source : Deputy Inspector General of Police, Criminal Investigation Department, West Bengal Government.

The thanawise break-up of enforcement crimes is given in the following table¹ which would indicate that these offences are most prevalent in the Siliguri and Kalimpong police stations, with a lesser incidence in Sadar, Kurseong, Phansidewa, Naksalbari and Kharibari.

Police Station	1961	1962	1963	1964	1965	1966
Sadar	22	31	15	14	13	16
Jore-Bungalow	23	6	4	8	5	6
Sukhiapokhri	12	16	12	11	9	3
Pulbazar	13	10	13	3	7	1
Rangli-Rangliot	5	3	9	6	2	1
Kurseong	52	14	30	25	18	7
Mirik	8	7	4	2	2	—
Kalimpong	68	84	21	28	17	28
Gorubathan	14	10	9	1	3	10
Siliguri	98	99	49	80	44	197
Phansidewa	8	18	5	6	6	36
Naksalbari	26	9	5	18	11	20
Kharibari	6	13	5	8	15	42

The table below, gives figures regarding excise crimes in the district in recent years :

Year	Cases Apprehended	Cases Convicted
1960-61	578	489
1961-62	560	481
1962-63	567	485
1963-64	627	512
1964-65	763	597
1965-66	928	765
1966-67	1,087	843

¹ Source : Superintendent of Police, Darjiling.

² Source : Superintendent of Excise, Darjiling.

The thanawise break-up of excise crimes in the district is shown in the statement below. (The figures include those carried over from the previous year.)¹

Police Station	1961-62		1962-63		1963-64		1964-65		1965-66	
	Cases apprehended	Cases convicted	Cases apprehended	Cases convicted	Cases apprehended	Cases convicted	Cases apprehended	Cases convicted	Cases apprehended	Cases convicted
Sadar	61	49	68	58	70	57	142	94	189	159
Jore-Bungalow		17	28	20	50	36	56	54	54	46
Sukhiapokhri	15	11	16	12	22	14	39	22	37	25
Pulbazar	20	17	30	24	38	25	25	20	73	53
Rangli-Rangliot	8	6	8	6	11	7	30	12	36	26
Kurseong	19	18	35	30	43	34	80	63	91	74
Mirik	5	4	5	4	2	2	11	7	18	13
Kalimpong	65	54	70	61	59	48	37	33	84	79
Gorubathan	28	28	24	23	18	18	14	14	30	30
Siliguri	137	132	146	134	141	134	139	133	100	88
Phansidewa	59	50	50	42	47	34	70	55	68	51
Naksalbari	93	75	70	57	104	88	100	75	99	82
Kharibari	26	20	17	14	22	15	20	15	49	39

Prosecution and conviction

No discussion on the incidence of crime is complete without the reported crime figures being reviewed against prosecution and conviction statistics. The following tables² would throw light on this aspect of the matter both in respect of General Register³ and non-General Register cases.⁴

(1) G. R. CASES

(a) Reported

Year	Darjiling	West Bengal	Ratio per cent of col. 2 to col. 3
1961	1,019	50,035	1.83
1962	984	53,699	1.83
1963	1,145	55,085	2.08
1964	1,208	53,746	2.25
1965	1,032	53,142	1.94
1966	797	55,174	1.44

¹ Source : Superintendent of Excise, Darjiling.

² Source : Deputy Inspector General, Criminal Intelligence Department, West Bengal.

³ G. R. cases are those where police, by themselves, can take cognizance and arrest without warrant.

⁴ Police prosecutions, other than G. R. cases, are non-G. R. cases, which comprise prosecution report cases, certain summons procedure cases and the like.

(b) Prosecuted

Year	Darjiling	West Bengal	Ratio per cent of col. 2 to col. 3
1961	778	30,500	2.55
1962	857	31,585	2.71
1963	816	36,622	2.23
1964	915	37,841	2.42
1965	877	90,683	2.16
1966	824	41,075	2.01

(c) Convicted

1961	274	6,437	4.26
1962	273	649	4.46
1963	235	7,314	3.21
1964	309	7,053	4.38
1965	257	8,746	2.94
1966	212	6,112	3.47

(II) NON-G. R. CASES*(a) Reported*

1961	5,599	49,484	11.31
1962	6,404	50,976	19.56
1963	5,037	52,408	9.61
1964	5,749	49,369	11.64
1965	3,756	47,218	7.95
1966	3,170	42,456	7.47

(b) Prosecuted

Year	Darjiling	West Bengal	Ratio per cent of col. 2 to col. 3
1961	4,483	50,967	8.80
1962	5,920	53,274	11.11
1963	4,780	54,651	8.75
1964	5,615	50,988	11.01
1965	3,365	47,829	7.04
1966	2,839	42,838	6.63

(c) Convicted

1961	4,223	42,771	9.87
1962	5,366	44,933	11.94
1963	4,375	47,484	9.21
1964	5,323	41,852	12.72
1965	3,188	39,136	8.15
1966	2,528	33,852	7.47

Shops and Establishment cases

In 1967 the local officers of the Shops and Establishments Directorate conducted 2,500 inspections in the district, detected 150 infringements, issued 32 warnings, and launched 118 prosecutions. In the same year, the courts disposed of 80 shops & establishment cases, of which 71 ended in conviction, 2 were filed and the accused were acquitted in 7. The total fines imposed amounted to Rs. 5,350. As regards pay cases, there was non-payment of wages in 3 instances, the carry-over of similar cases from the previous year numbered 2, while wages were recovered in 5 cases for a total amount of Rs. 2,665.¹

POLICE

"In 1854 the police administration of the district was apparently superior to that in the districts of the Regulation Provinces".² About the same time, the district had police stations and subordinate chowkis manned by personnel as shown in the following statement.³

¹ Source : Supervising Inspector, Shops and Establishments, Raiganj.

² W. A. Jackson—*Report on Darjeeling : Selections from the Records of the Bengal Government* No. XVIII ; Calcutta, 1854. p. 19.

³ Source : Communication from Dr. A. Campbell to the Government, dated 1 September 1853.

**POLICE STATIONS, CHOWKIS AND PERSONNEL IN
DARJILING DISTRICT IN 1853**

<i>Name of Police Station/ Chowki in the hills</i>	<i>Personnel</i>
Sadar (Darjiling) P.S.	1 Darogah 1 Jemadar 17 Peons
Balesun Chowki	1 Duffadar 3 Peons
Goke Chowki	1 Duffadar 3 Peons
Teang Chowki	2 Peons
Nagri Chowki	1 Jemadar 1 Duffadar 6 Peons
Moormidong Chowki	1 Jemadar 1 Duffadar 6 Peons
Chongtong Chowki	1 Jemadar 1 Duffadar 6 Peons
Pushok (Peshok) Chowki	1 Jemadar 1 Duffadar 6 Peons

<i>Name of Police Station/ Chowki in the plains</i>	<i>Personnel</i>
Matigara P.S.	1 Darogah 1 Jemadar 10 Peons
Besserhatti Chowki	1 Mohurriar 4 Peons
Goramara Chowki	1 Jemadar 1 Duffadar 4 Peons

<i>Name of Police Station/ Chowki in the plains</i>	<i>Personnel</i>
Naksalbari Chowki	1 Jemadar 1 Duffadar 4 Peons
Phansidewa P.S.	1 Darogah 1 Mohurir 10 Peons
Thakurganj Chowki	1 Jemadar 7 Peons
Kharibari Chowki	1 Jemadar 7 Peons
Kurseong, Mahaldiram and Sonada	There was one peon only at Kurseong and Mahaldiram and two at Sonada on the High road from the plains who were in charge of merchant sheds etc.

Police administration in the district has been steadily strengthened since then and in 1860, prior to the constitution of a regular police force, police personnel in Darjiling, as reported by the Deputy Commissioner, consisted of 16 Indian officers and 102 footmen. According to Hunter¹ at the end of 1872, the regular police had the following strength: 1 District Superintendent, 35 sub-ordinate officers, and 177 foot police constables. According to these figures, there is one policeman to every 5.79 sq. miles of the district area, and one to every 445 persons of the population.

¹ In the old Darjiling District Gazetteer, published in 1907, O'Malley stated: "The district is divided into 4 police circles or thanas, viz, Darjiling, Jorbangala, Kurseong and Siliguri and, besides these, there are 4 independent outposts and 22 dependent outposts, including 14 patrol posts. There are, therefore, altogether 31 centres for the investigation of crime. The regular police force consisted in 1905 of a District Superintendent of Police, 5 Inspectors, 24 Sub-Inspectors, 2 Sergeants, 49 Head Constables and 351 Constables, making in all 432 men. In addition to the regular police force, there is a rural force or village-watch consisting of 24 dafadars and 153 chaukidars. Owing to the mountainous nature of the country and the difficulties of

¹ W. W. Hunter—*Statistical Account of Darjeeling*; London 1876; pp. 182-3.

communication, the force is proportionately stronger than in other parts of the Province, there being one policeman for every 2.7 sq. miles and for every 576 persons".¹ Dash found 3 police circles in the district, namely, Darjiling, Kalimpong and Siliguri-Kurseong around 1944, when the personnel consisted of 6 Inspectors, 28 Sub-Inspectors, 24 Assistant Sub-Inspectors, 2 Sergeants, 46 Head Constables and 521 Constables.²

The present police set-up is headed by a Superintendent of Police, who is assisted by an Additional Superintendent of Police and 3 Deputy Superintendents of Police at the district headquarters, 2 Sub-Divisional Police Officers, one at Siliguri and the other at Kalimpong, and 19 Inspectors.³ The following table⁴ gives the strength of other ranks of police personnel in the district.

<i>Police Station</i>	<i>No. of Sub-Ins- pectors</i>	<i>No. of Assistant Sub-Ins- pectors</i>	<i>No. of Constables</i>
Sadar (Darjiling)	6	5	18
Jore-Bungalow	2	2	10
Sukhiapokhri	1	1	8
Pulbazar	1	1	8
Rangli-Rangliot	1	1	8
Kurseong	4	3	14
Mirik	1	1	8
Kalimpong	4	4	18
Gorubathan	1	1	8
Siliguri	4	4	16
Phansidewa	1	1	8
Naksalbari	—	—	4
Kharibari	1	1	8

¹ L. S. S. O'Malley—*Bengal District Gazetteers : Darjeeling* ; Calcutta 1907 ; p. 163.

² A. J. Dash—*Bengal District Gazetteers : Darjeeling* ; Alipore, 1947 ; p. 236.

³⁻⁴ Source : Superintendent of Police, Darjiling.

Enforcement and Intelligence

The Enforcement Branch is headed by an Inspector, who is assisted by 8 Sub-Inspectors, an Assistant Sub-Inspector and 10 Constables. The Intelligence Branch has 3 Inspectors, 13 Sub-Inspectors, 10 Assistant Sub-Inspectors and 75 Constables.¹

Rural police

In 1872 there were only 5 rural police or village watchmen in the district. In O'Malley's time (1907) there were 24 dafadars and 153 chaukidars whereas Dash has spoken of 24 dafadars and 142 chaukidars in 1947. At present the rural police is under the Panchayats that are local self-governing institutions.

Home Guards

The functions of Home Guards, as laid down by the Union Ministry of Home Affairs, are to serve as auxiliary to the police and generally help in maintaining internal security ; to render assistance to the community in emergencies like air-raids, fire havocs, floods, epidemics etc.; to perform such priority tasks as may be directly or indirectly connected with the country's defence and to assist in the running of essential services like motor transport, fire brigades, nursing, water supply and power installations. As regards physical fitness, the standards laid down for ordinary policemen generally apply in their case. They are given basic training in discipline, including infantry drill, toughening by means of physical exercises, training in traffic and crowd control, use of fire-arms, rescue, first-aid and fire fighting. Higher courses in map reading, fieldcraft, handling of automatic weapons and operating wireless sets is given to selected Home Guards. Leadership courses are also arranged with a view to giving the organization its own commanders. The following table gives a thanawise break-up of Home Guards in the district in 1967.²

<i>Name of Police Station</i>	<i>No. of Home Guards</i>	
	<i>Rural</i>	<i>Urban</i>
Sadar (Darjiling)	122	110
Jore-Bungalow	92	—
Sukhiapokhri	106	—
Rangli-Rangliot	106	—
Pulbazar	169	—
Kurseong	29	113
Mirik	123	—
Kalimpong	129	121
Gorubathan	146	—
Siliguri	113	119
Phansidewa	147	—
Naksalbari	149	—
Kharibari	123	—

1-2 Source : Superintendent of Police, Darjiling.

The Home Guards organization in the district is headed by a District Commandant, who is assisted by 4 Home Guards Commandants, 4 Deputy Home Guards Commandants, 28 Ground Commanders and 96 Deputy Ground Commanders. During 1966 the Home Guards were called up 19 times for cordoning duties, 5 times in connexion with the visits of V.I.Ps, 3 times for watching railway tracks, twice for general strikes and once each for checking ration cards, Bakr-Id, Muharram and maintaining law and order in Darjiling town.¹

The National Volunteer Force is a semi-official organisation with personnel recruited from the local people who volunteer their services on a part-time basis. In Darjiling it is headed by a District Commandant, who has under him an Assistant Company Commander. There are 5 platoons in all in the district, the details of which are given below.²

National Volunteer Force

Platoon No.	Jurisdiction	Strength
1	Sadar Police Station	60
2	Rangli-Rangliot Police Station	53
3	Kurseong Subdivision	57
4	Kalimpong Subdivision	60
5	Phansidewa, Kharibari & Naksalbari Police Stations	60

It is reported that the force was successfully employed on different occasions such as the general elections and the Naksalbari disturbances.

The Deputy Commissioner is the head of the excise administration in the district. He is assisted by a Superintendent of Excise, an Inspector, 6 Sub-Inspectors, one each in six circles, namely, Darjiling Sadar, Kurseong, Kalimpong, Siliguri, Naksalbari and Phansidewa. There are 3 more Sub-Inspectors, one of whom is in joint charge of the Darjiling and Kalimpong warehouses, one is in charge of the Siliguri warehouse and the third belongs to the Superintendent's squad. There are besides 8 Assistant Sub-Inspectors and 66 Constables.³

Excise Administration

¹⁻² Source : Superintendent of Police, Darjiling.

³ Source : P. A. to Commissioner of Excise, West Bengal.

The following table shows the number of licensees in the district between 1960-61 and 1966-67.¹

Articles covered by licences	1960-61	1961-62	1962-63	1963-64	1964-65	1965-66	1966-67
Country Spirit	29	29	29	31	33	32	32
Ganja, Bhang, Opium	14	15	13	15	16	16	17
Foreign liquor	27	26	26	25	30	30	30
Pachwai	14	22	23	23	23	23	23

The statement below gives figures of sale of some of the important excise articles in the district between 1960 and 1967.²

SALE OF EXCISE ARTICLES IN DARJILING DISTRICT : 1960-67

		Country Spirit	Ganja	Foreign Liquor	Beer
1960-1	Quantity sold	23,487			
	L. P. gallons	80 seers			
	Approx. value	Rs. 10,10,000	Rs. 16,000	Rs. 6,69,000	Rs. 1,11,000
1961-2	Quantity sold	28,935	84 seers	5,292	7,477
	L. P. gallons			gallons	gallons
	Approx. value	Rs. 12,40,000	Rs. 16,860	Rs. 6,72,000	Rs. 1,12,200
1962-3	Quantity sold	1,56,032		28,461	98,471
	L. P. litres	45 kg.		litres	litres
	Approx. value	Rs. 17,16,000	Rs. 10,000	Rs. 8,54,000	Rs. 3,74,000
1963-4	Quantity sold	2,30,620		33,533	58,415
	L. P. litres	40 kg.		litres	litres
	Approx. value	Rs. 25,37,000	Rs. 8,900	Rs. 10,06,000	Rs. 2,48,000
1964-5	Quantity sold	2,79,448		36,641	57,302
	L. P. litres	147 kg.		litres	litres
	Approx. value	Rs. 30,74,000	Rs. 32,700	Rs. 11,72,000	Rs. 2,44,000
1965-6	Quantity sold	3,29,749		39,494	52,933
	L. P. litres	111 kg.		litres	litres
	Approx. value	Rs. 36,27,000	Rs. 24,700	Rs. 13,43,000	Rs. 2,39,000
1966-7	Quantity sold	3,78,457		43,632	57,146
	L. P. litres	122 kg.		litres	litres
	Approx. value	Rs. 41,63,000	Rs. 27,200	Rs. 14,84,000	Rs. 2,57,000

¹⁻² Source : P. A. to Commissioner of Excise, West Bengal.

An idea of the load of criminal cases in the district during the middle of the nineteenth century can be had from the following table.

CRIMINAL CASES IN DARJILING DISTRICT : 1848-52¹

Brought over from previous year	Admitted		Tried during the year	Pending at the end of year	No. of persons brought under summons /arrest	No. of persons convicted	No. of persons acquitted
	in	No. of cases					
4	1848	243	247	—	296	123	173
—	1849	218	213	5	321	119	202
5	1850	305	304	6	387	178	209
6	1851	351	345	12	484	222	262
12	1852	306	313	5	451	179	272

There was only one magistrate's court in the district in 1850, two in 1862, four in 1869 and three in 1870.² In O'Malley's time (1907), "The judicial staff entertained for the administration of criminal justice consists of the District Judge of Purnea, the Deputy Commissioner, the stipendiary Magistrates stationed at Darjiling, the Subdivisional Officer of Kurseong and the Deputy Magistrate of Siliguri. Besides these, there is a strong bench of Honorary Magistrates at Darjiling, some of whom are vested with first class powers and have authority to try cases singly, another at Kurseong, and a third in the Terai, which is known as the Naksalbari branch of Honorary Magistrates, but holds its court at Bagdogra."³ Dash wrote in 1947 : "The administration of criminal justice is conducted by a Sessions Judge, the Deputy Commissioner, Stipendiary Magistrates and Honorary Magistrates. In 1944 there were 19 Stipendiary Magistrates and 7 Honorary Magistrates."⁴ The present set-up for administering criminal justice in the district is headed by the Sessions Judge, there being besides a Subordinate Judge, three 1st Class, one 2nd Class and two 3rd Class Magistrates at Sadar; one 1st Class and one 2nd Class Magistrates at Kurseong; three 1st Class, one 2nd Class and one 3rd Class Magistrates at Siliguri and one 1st Class and one 2nd Class Magistrates at Kalimpong.⁵

¹ The particulars were furnished by Dr. Campbell to the Government on 8 September 1853.

² W. W. Hunter—*Statistical Account of Bengal : Darjeeling* ; London, 1876 ; p. 182.

³ L. S. S. O'Malley—*Bengal District Gazetteers : Darjeeling* ; Calcutta ; 1907, pp. 162-3.

⁴ A. J. Dash—*Bengal District Gazetteers : Darjeeling* ; Alipore, 1947 ; p. 235.

⁵ Source : District Judge, Darjiling.

The personnel, work-load and expenses of criminal courts functioning in the district between 1961 and 1967 will be found in the following table.¹

PERSONNEL, WORK-LOAD AND EXPENSES OF CRIMINAL COURTS
IN DARJILING DISTRICT : 1961-67

Year	Judges with sessions powers	Magis- trates	No. of cases decided				Total receipts Rs.	Total expenses Rs.
			Original		Appellate			
			Regular	Misc.	Regular	Misc.		
1961	3	12	8,231	282	30	12	1,50,318	81,293
1962	1	15	6,980	422	43	7	1,37,443	1,16,985
1963	3	15	7,668	317	64	10	1,82,507	1,35,460
1964	3	14	7,032	286	100	15	2,07,878	1,70,874
1965	2	13	6,671	248	90	27	2,40,161	1,49,969
1966	2	13	5,583	236	64	25	1,87,406	1,38,124
1967	2	12	3,951	165	45	72	1,05,371	1,50,499

The figures of major offences reported as also of persons tried, convicted or acquitted in the district between 1961 and 1967 will be found in Appendix I to this Chapter.

Criminal cases may broadly be divided into two categories, namely, those that are tried by Magistrates (including Honorary Magistrates) enjoying 1st, 2nd or 3rd class powers and those that are tried by Judges exercising sessions powers. The statement in Appendix VI gives particulars of cases tried by various Magistrates in the district between 1961 and 1967.

The District and Sessions Judge, Jalpaiguri also functions as the District and Sessions Judge, Darjiling. Besides him, there is an Assistant Sessions Judge stationed at the district headquarters. The particulars of the sessions triable cases attended to by them between 1961 and 1967 are given in the statement in Appendix VII.

The particulars of all criminal cases (including sessions triable cases) tried in the district by all categories of Magistrates and Sessions Judges between 1961 and 1967 are shown in the statement in Appendix VIII.

The nature and duration of punishments meted out to culprits throw an interesting sidelight on the administration of criminal justice. The table in Appendix IX furnishes particulars of convictions and fines ordered by Magistrates of all categories in the district between 1961 and 1967.

The statement in Appendix X gives particulars of convictions and fines imposed by Sessions Judges between 1961 and 1967.

No description of the administration of criminal justice is complete without a reference to appeals and prayers for revision. The statement in Appendix XI gives particulars of the same disposed of by all appellate authorities in the district and the Calcutta High Court between 1961 and 1967.

¹ Source : The High Court, Calcutta.

The first civil court at Darjiling was constituted in 4 September 1839 under an Order of the Council, Rule 4 which laid down : "The officer in civil charge is vested with the power and authority of the Civil Judge in respect to all claims, complaints and disputes that may arise, and be cognizable in the Civil Courts of the settlement, under the Acts and Regulations in force for the Bengal Presidency." It exercised jurisdiction over suits between European British subjects. All complaints against military officers were also entertained by it till the Military Courts of Requests were established.¹

Particulars of civil suits disposed of during the middle of the 19th century are given in the table² below :

Brought forward from last year	Admitted Year	No. of cases	Decided on trial		Adjusted by Raze-nama	Dismissed on default under Act XXIX of 1841	Remaining for trial at the end of the year
			Decreed	Dismissed			
7	1848	136	82	8	25	22	6
6	1849	114	76	4	12	21	7
7	1850	78	51	6	3	18	7
7	1851	88	55	3	15	16	6
6	1852	84	50	4	13	17	6

As regards the procedure followed in civil courts, Dr. Campbell wrote : "On presentation of a plaint, the case is registered by the Judge in his own hand. . . Details of claim and all vouchers must be attached to the plaint. Notice of suit and subpoenas are issued at once, the first day of hearing is fixed, and is always within seven days from the date of presentation, if the defendant is within ten miles of the station. Principals are encouraged to conduct their own cases and generally do so. . . The plaintiff and defendant make their respective statements first, and after them the witnesses, who are desired to do so, in the order pointed out by their separate principals, or quite as often, in the order of their credibility in the estimation of the Judge. These viva voce proceedings generally produce a very animated interchange of sentiments, and in cases where the cause of action is recent, and the dealings not complicated, a clear view of the matter rapidly obtained, and a decision recorded at once. . . The final decision or decree gives the amount and cause of action very succinctly, refers very briefly to the evidence, and then passes on to the Judgement".³

¹ Memorandum on the working of the Civil Court at Darjeeling, 1 May 1852.

² Particulars were furnished by Dr. Campbell to the Government on 1 September 1853.

³ Memorandum on the working of the Civil Court at Darjeeling, 1 May 1852.

In his 'Memorandum on the working of the Civil Court at Darjeeling' (1 May 1852), Dr. Campbell further wrote on the brief evidence taken in Civil Suits : "They are kept as a means by which the deciding officer can, by referring to the case, see the grounds of his decision at the time it was passed. I have always found on referring to my cases, either when necessary in the investigation of other suits, or an application for review of judgement, or for my own satisfaction, when I may have doubted the justice of a decree, that these brief records of evidence were quite sufficient to bring my mind into the same state of enlightenment on the facts of the case, as it was at the original enquiry."

With the remark that in civil suits no form was observed which was not essential, Jackson summarized the procedure followed as one in which there was no provision for appeal and the decision of the Superintendent was final and binding.¹

The business of the Superintendent's court was usually carried on in Bengali, while the language of most of the resident population was Hindi akin to that used in Nepal and Bihar. Jackson saw no reason why this anomaly should continue and advocated "the adoption of Hindee as the language of the Courts, and public offices, to be written in the Persian character, as in Purneah, where the language of the people is very similar. The Nagree character is in general use in Nepal, but it is cumbersome and tedious to write, and the same character is used among the lower classes all over the Behar Province, where the Court records are in the Persian Character."²

When O'Malley wrote his Darjiling District Gazetteer in 1907, the position was as follows : "The Chief Civil and Criminal Court is that of the District and Sessions Judge of Purnea, whose headquarters are at Purnea, but who occasionally visits Darjiling. The district was formerly under the jurisdiction of the District and Sessions Judge of Dinajpur, but since October 1905, when Darjeeling was transferred to the Bhagalpur Division and Dinajpur was incorporated in the new province of Eastern Bengal and Assam, it has been included in the jurisdiction of the Judge of Purnea. ...At Darjeeling the senior Deputy Magistrate is vested with the powers of a Small Cause Court Judge up to Rs. 500, and of a Sub-Judge and Munsif within the headquarters Subdivision. At

¹ W. A. Jackson : *Report on Darjeeling. Selections from the Records of the Bengal Government* No. XVIII. Calcutta, 1854. p. 13. He further remarked : "The simple and natural mode of trial is a very good one, but the process has no authority of Law ; and as the Station and District become more populous and more wealthy, it is certain that complicated questions of right will arise and the legality of the Superintendent's jurisdiction will form the subject of legal discussion ; it is therefore desirable that an Act of the Legislature should be passed, defining the powers of the Superintendent as civil judge and the course of proceedings in his Court."

² W. A. Jackson—*op. cit.*, p. 19.

Kurseong the Subdivisional Officer has the powers of a Munsif and of a Small Cause Court Judge up to Rs. 50, and has authority to try rent suits while the Deputy Magistrate at Siliguri has the powers of a Munsif as regards civil suits instituted in the Tarai. Appeals from the decisions of the Munsifs of Kurseong and Siliguri lie with the Deputy Commissioner and the District Judge of Purnea hears those preferred against the orders of the Sub-Judge of Darjeeling."¹ Dash, in his Darjiling Gazetteer of 1947, wrote : "At Darjeeling, the Civil Court is that of the Sub-Judge who also exercises powers of a Munsif and Small Cause Court Judge up to Rs. 500. Work is not heavy, 30 contested cases only being heard in 1944 with just over 400 cases instituted, In Kurseong, Kalimpong and Siliguri, Subdivisional Officers exercise powers of munsifs and civil work is light. In the last 25 years there has been no appreciable change in the volume of civil work in the district."² The present set-up for administering civil justice in the district consists of a District and Sessions Judge, a Subordinate Judge with sessions powers and a Munsif who is normally stationed at Siliguri but presides over the Munsif's courts at Kurseong and Kalimpong as well. The District and Sessions Judge, Jalpaiguri also works as the District and Sessions Judge, Darjiling.³

Statistics about the numbers of suits instituted, disposed of and pending in all the civil courts of Darjiling District between 1961 and 1967 are given in Appendix II to this chapter.⁴ A statement regarding the numbers of applications for the execution of decrees filed, disposed of and pending in all the civil courts of the district during the same period will be found in Appendix III to this chapter. Besides, a table, in Appendix IV to this chapter, furnishes figures of miscellaneous cases—instituted, disposed of and pending—in each of the civil courts, during the same period, in Darjiling.

Crimes can be prevented through anticipated precautions or correction of the offenders. The latter being the more humane way, a system of probation is now in operation under which an accused, although found guilty, is released by the trying court on executing a bond to abide by certain terms and conditions according to the guidance of a court-appointed Probation Officer. Under Sec. 14 of the Probation of Offenders Act, 1958, such an officer is required to "inquire, in accordance with any directions of a court, into the circumstances, or home surroundings of any person accused of an offence with a view to assisting the court

The probation system

¹ L.S.S.O'Malley—*Bengal District Gazetteers : Darjeeling*; Calcutta, 1907; p. 162.

² A. J. Dash—*Bengal District Gazetteers : Darjeeling*; Alipore, 1947, p. 237.

³ Source : District Judge, Darjiling.

⁴ Source : Calcutta High Court.

in determining the most suitable method of dealing with him and to guide prisoners and other persons placed under his supervision and, where necessary, endeavour to find them suitable employment."

State assistance in legal proceedings

The District and Sessions Judge, Darjiling reports that in his district there is no system of rendering State assistance in legal proceedings to members of Scheduled Castes. The Tribal Welfare Department, however, renders financial help to members of Scheduled Tribes in protecting their interests in court cases.

Separation of judiciary from executive

The West Bengal Separation of Judicial and Executive Functions Act, 1968 has been enacted to give effect to the relevant directive principle contained in Article 50 of the Constitution of India.

JAILS

When Jackson visited the Darjiling Jail in 1852, he found it well kept, "but the space allotted for the convicts is very small in proportion to their numbers. ...The average number of prisoners now is between 40 and 50 and the average number of sick for the past two years is about 12 per cent. The convicts are fed by rations and are employed chiefly on the roads."¹

According to Hunter²: "In 1857-58, the first year for which materials are available, the daily average number of prisoners in the Darjeeling jail was 40, the total number of civil, criminal, and under-trial prisoners admitted during the year being 488. The discharges were as follows: transferred, 25; released, 453; died, 5; executed, 6; total, 489. In 1860-61, the jail returns show a daily average of 43 prisoners, the total number of prisoners admitted during the year being 390. The discharges were: transferred, 5; released, 378; escaped, 2; died, 2; total, 387. In 1870 the daily average jail population was 61, the total number of prisoners admitted during the year being 227. The discharges were: transferred, 6; released, 229; escaped, 2; died, 1; executed 1; total, 239. With regard to the health of the jail, I gather that in 1857-58 the proportion of prisoners admitted into hospital amounted to 250 per cent and the deaths to 12.50 per cent of the average prison population; ...in 1870 the admissions into hospital fell to 57.37 per cent, and the death-rate to 1.64 per cent of the average jail population."

In O'Malley's time (1907), besides the District Jail at Darjiling there were subsidiary jails at Kurseong and Siliguri. "The latter have accommodation of 24 and 8 prisoners respectively and are merely lock-ups in which prisoners sentenced to imprisonment

¹ W. A. Jackson—*Report on Darjeeling: Selections from the Records of the Bengal Government* No. XVIII. Calcutta, 1854; p. 21.

² W. W. Hunter—*Statistical Account of Darjeeling*; London, 1876; pp. 185-7.

for a fortnight or less are confined. The District Jail is an old-fashioned building, which can contain 130 prisoners : there are cells for 11 prisoners and barracks without separate sleeping accommodation for 119 prisoners, including the hospital which contains 10 beds, a building reserved for 9 under-trial prisoners and another intended for 4 European prisoners.”¹

“The District Jail at Darjeeling”, wrote Dash in 1947, “has accommodation for 114 prisoners in barracks and 6 in cells. The barrack accommodation includes that of a hospital for 10. There are separate buildings for under-trial prisoners (9) and for European prisoners (4). The staff consists of a Superintendent, a Deputy Jailor, a Sub-Assistant Surgeon, 3 Head Warders, 24 Male Warders and one Female Warder : 23 of these are hillmen. ...The average population is below capacity. ...There are Sub-Jails at Kurseong, Kalimpong and Siliguri, the last being subordinate to the Jalpaiguri Jail. The Sub-Jails are for the accommodation of under-trial and convicts imprisoned for a fortnight or less and the accommodation is for 24, 16 and 11 at Kurseong, Kalimpong and Siliguri.”²

The jail administration in the district still consists of the aforesaid establishments. The Chief Medical Officer of Health, Darjiling is the part-time Superintendent of the District Jail and has under him a Jailor, a Deputy Jailor, 3 Head Warders, 27 Warders, and a female Warder. The Subdivisional Officer, Kurseong, the ex-officio Superintendent of the Kurseong Sub-Jail, is assisted by a Medical Officer-cum-Deputy Superintendent, a Sub-Jailor, 2 Head Warders and 6 Warders. The Subdivisional Officer, Kalimpong is the ex-officio Superintendent of the Kalimpong Sub-Jail and has a Sub-Jailor, 2 Head Warders and 6 Warders under him.

There is a panel of non-official jail visitors selected from amongst respectable persons in various walks of life who pay visits to all the jails and suggest ameliorative measures, as and when necessary. Besides them, there are religious teachers to impart moral lessons to the convicts. The jails also offer school and library facilities to the inmates.

Non-official jail
visitors

The two sets of tables, in Appendix V to this chapter, furnish figures about the number of prisoners according to age-groups as also their prison-terms in the four jails of the district between 1961 and 1966 (except Siliguri Sub-jail, for which figures are not available.)

¹ L.S.S.O'Malley—*Bengal District Gazetteers : Darjeeling*; Calcutta, 1907 ; p. 163.

² A. J. Dash—*Bengal District Gazetteers : Darjeeling*; Alipore, 1947; p. 237.

Prison industries

Prison industries have been carried on by the convicts in the Darjiling Jail since the middle of the 19th century. Hunter observed that in 1870 the profits out of jail manufactures amounted to a little more than Rs. 100 and the average earning of each convict-artisan was a little less than Rs. 17. In 1872 he found the industries in the Darjiling Jail running at a loss.¹ O'Malley noticed : "The bakery, from which bread is supplied to the troops and the general public, constitutes the chief industry ; but oil-pressing, bamboo and cane-work, carpentry and boot-making are also carried on."² During Dash's time (1947) the industries carried on in Darjiling Jail related to cane and bamboo manufacture, gardening, bee-keeping, oil-pressing, and wheat grinding.³ According to information received from the West Bengal Prisons Directorate, the Darjiling Jail now encourages its prisoners only in gardening and weaving.



¹ W. W. Hunter—*Statistical Account of Darjeeling*; London, 1876: p. 187.

² L.S.S.O'Malley—*Bengal District Gazetteers : Darjeeling*; Calcutta. 1907: p. 163.

³ A. J. Dash—*Bengal District Gazetteers : Darjeeling*; Alipore, 1947; p. 237.

APPENDIX I
MAJOR OFFENCES REPORTED & OFFENDERS TRIED
AND CONVICTED OR ACQUITTED IN
DARJILING DISTRICT : 1961—1967

A. Against Public Tranquillity

	1961	1962	1963	1964	1965	1966	1967
<i>No. of Cases</i>							
Offences reported	136	155	120	181	136	143	129
Returned as true	136	155	120	180	136	143	129
Brought to trial	129	154	120	178	129	141	127
<i>No. of Persons</i>							
Under trial, including carry-over from previous year	478	471	556	613	395	338	382
Acquitted	63	48	116	80	24	96	82
Convicted	249	337	193	333	261	213	198
Died, escaped or transferred	29	12	7	3	3	1	2
Carried over to next year	137	74	240	197	107	28	100

B. Affecting Life

<i>No. of Cases</i>							
Offences reported	40	47	37	62	64	74	41
Returned as true	40	47	37	54	64	74	41
Brought to trial	29	27	36	51	46	71	26
<i>No. of Persons</i>							
Under trial, including carry-over from previous year	119	54	54	76	69	81	48
Acquitted	6	21	29	32	20	15	26

APPENDIX-I—Contd.

	1961	1962	1963	1964	1965	1966	1967
Convicted	44	12	6	19	22	12	20
Died, escaped or transferred	—	4	1	1	3	13	—
Carried over to next year	69	17	18	24	24	41	2

C. Hurt*No. of Cases*

Offences reported	291	364	248	260	222	231	282
Returned as true	279	348	223	250	221	230	282
Brought to trial	252	299	192	221	202	222	276

No. of Persons

Under trial, including carry-over from previous year	469	646	511	531	523	331	440
Acquitted	310	177	289	323	192	177	292
Convicted	58	168	60	79	68	24	117
Died, escaped or transferred	1	5	2	5	22	8	2
Carried over to next year	100	296	160	124	241	122	29

D. Rape*No. of Cases*

Offences reported	4	3	4	—	5	—	2
Returned as true	4	3	4	—	5	—	2
Brought to trial	2	1	4	—	4	—	2

No of Persons

Under trial, including carry-over m previous year	2	1	6	—	8	—	2
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APPENDIX-I—Contd.

	1961	1962	1963	1964	1965	1966	1967
Acquitted	1	—	1	—	1	—	1
Convicted	—	—	3	—	7	—	—
Died, escaped or transferred	—	1	1	—	—	—	—
Carried over to next year	1	—	1	—	—	—	—

E. Theft*No. of Cases*

Offences reported	356	385	569	515	246	299	306
Returned as true	354	385	560	512	246	298	306
Brought to trial	197	213	374	210	210	159	277

No. of Persons

Under trial, including carry-over from previous year	328	451	420	397	376	334	384
Acquitted	126	144	160	165	112	156	88
Convicted	115	151	96	117	89	103	265
Died, escaped or transferred	3	6	5	8	2	2	—
Carried over to next year	84	150	159	107	173	73	31

F. Robbery & Dacoity*No. of Cases*

Offences reported	17	12	30	15	23	9	14
Returned as true	17	12	30	15	23	9	14
Brought to trial	8	12	15	9	13	9	11

No. of Persons

Under trial, including carry-over from previous year	15	33	35	33	47	11	26
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APPENDIX-I—Contd.

	1961	1962	1963	1964	1965	1966	1967
Acquitted	2	12	6	7	23	1	14
Convicted	3	9	23	11	17	4	3
Died, escaped or transferred	—	—	—	2	—	4	—
Carried over to next year	10	12	6	13	7	2	9

G. Criminal Trespass*No. of Cases*

Offences reported	226	264	139	229	228	250	311
Returned as true	225	261	134	225	228	249	311
Brought to trial	167	200	92	101	139	237	288

No. of Persons

Under trial, including carry-over from previous year	335	420	290	168	300	328	479
Acquitted	107	196	83	64	121	157	288
Convicted	113	127	135	53	79	40	57
Died, escaped or transferred	2	4	—	8	4	—	—
Carried over to next year	113	93	72	43	96	131	134

H. Under Special and Local Laws*No. of Cases*

Offences reported	7,315	5,675	6,525	6,202	6,107	5,042	5,209
Returned as true	7,315	5,675	6,525	6,202	6,107	5,042	5,207
Brought to trial	7,285	5,597	6,492	6,139	6,019	4,890	4,864

No. of Persons

Under trial, including carry-over from previous year	8,571	6,385	7,852	6,850	6,769	6,735	7,536
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APPENDIX I—*Concl'd.*

	1961	1962	1963	1964	1965	1966	1967
Acquitted	363	484	634	334	204	318	1,366
Convicted	7,380	5,310	6,596	5,942	5,418	4,716	4,029
Died, escaped or transferred	546	248	313	375	487	671	375
Carried over to next year	282	343	309	199	660	1,030	1,766

I Under Bengal Food Adulteration Act.*No. of Cases*

Offences reported	210	57	119	163	122	92	88
Returned as true	210	57	119	163	122	92	88
Brought to trial	206	57	119	163	122	92	84

No. of Persons

Under trial, including carry-over from previous year	223	61	133	171	129	94	88
Acquitted	14	7	7	24	2	7	8
Convicted	201	46	105	128	86	78	68
Died, escaped or transferred	8	2	4	12	13	6	3
Carried over to next year	—	6	17	7	28	3	9

APPENDIX II

SUITS INSTITUTED, DISPOSED OF & PENDING IN ALL CIVIL COURTS OF DARJILING DISTRICT : 1961-1967

	1961	1962	1963	1964	1965	1966	1967							
	Reg. SCC.	Reg. SCC.	Reg. SCC.	Reg. SCC.	Reg. SCC.	Reg. SCC.	Reg. SCC.							
<i>Instituted</i>														
Money	406	197	520	161	538	114	510	131	368	178	304	231	272	176
Rent	3	—	—	—	2	—	1	—	3	—	—	—	—	—
Title and others (including matri- monial suits)	234	—	255	—	216	—	167	—	176	—	175	—	149	—
Total	643	197	775	161	756	114	678	131	542	178	479	231	419	176
<i>Disposed (Excluding transfer)</i>														
Money	467	202	485	169	523	137	437	84	400	123	344	196	315	198
On full trial	107	14	100	17	125	19	182	19	182	56	178	109	123	71
Rent	3	—	1	—	2	—	1	—	—	—	—	—	—	—

DARJILING

APPENDIX III
APPLICATIONS FOR THE EXECUTION OF DECREES—FILED, DISPOSED OF AND PENDING-IN ALL CIVIL COURTS
OF DARJILING DISTRICT : 1961-67

	1961		1962		1963		1964		1965		1966		1967	
	Reg.	SCC.	Reg.	SCC.	Reg.	SCC.	Reg.	SCC.	Reg.	SCC.	Reg.	SCC.	Reg.	SCC.
No. of applications filed	299	94	281	65	265	65	240	56	204	30	213	46	168	26
No of applications disposed of														
Satisfaction obtained :														
In full	93	20	100	13	88	17	60	14	58	13	45	5	38	11
In part	53	11	41	10	63	4	64	5	60	4	28	2	51	1
Wholly infructuous	140	46	115	47	113	47	93	26	97	22	104	24	96	28
Total	286	77	256	70	264	68	217	45	215	39	177	31	185	40
No. of application pending	195	35	205	27	193	20	207	22	177	12	199	21	165	6
Amount realized (Rs.)	72,232	2,264	1,41,766	3,046	51,042	3,583	99,456	3,244	2,15,526	3,412	55,835	715	10,674	953
Percentage of infructuous proceedings	180.3	99.8	183.7	168.1	174.0	120.3	199.5	131.0	195.1	117.5	203.5	195.1	220.0	167.4

N.B. 'Reg.' means regular suits and 'SCC.' means small cause cases.

APPENDIX IV

MISCELLANEOUS CASES—INSTITUTED, DISPOSED OF AND
PENDING-IN EACH OF THE CIVIL COURTS OF
DARJILING DISTRICT : 1961—67

Miscellaneous Judicial & Non-Judical cases							
Court	Year	Instituted		Disposed of		Pending	
		Judi- cial	Non- Judi- cial	Judi- cial	Non- Judi- cial	Judi- cial	Non- Judi- cial
District Judge, Darjiling	1961	60	2	67	1	28	1
	1962	32	1	9	1	45	1
	1963	25	4	17	—	53	5
	1964	37	3	15	1	75	7
	1965	32	2	19	1	88	8
	1966	17	2	29	5	76	5
	1967	13	1	33	2	58	4
Subordinate Judge, Darjiling	1961	80	—	66	—	50	—
	1962	98	—	99	—	49	—
	1963	68	—	78	—	40	—
	1964	78	—	67	—	54	—
	1965	75	—	78	—	51	—
	1966	73	—	68	—	59	—
	1967	73	—	73	—	61	—
Munsif, Siliguri	1961	42	—	38	—	15	—
	1962	74	—	57	—	33	—
	1963	44	—	72	—	6	—
	1964	42	—	30	—	19	—
	1965	52	—	46	—	25	—
	1966	61	—	61	—	25	—
	1967	42	—	45	—	23	—

APPENDIX-IV *concl.*

Miscellaneous Judicial & Non-Judicial cases

Court	Year	Instituted		Disposed of Pending.			
		Judi- cial	Non- Judi- cial	Judi- cial	Non- Judi- cial	Judi- cial	Non- Judi- cial
Munsif, Kurseong	1961	15	—	18	—	4	—
	1962	14	—	14	—	5	—
	1963	6	—	8	—	3	—
	1964	5	—	7	—	1	—
	1965	4	—	3	—	2	—
	1966	9	—	8	—	3	—
	1967	9	—	8	—	5	—
Munsif, Kalimpong	1961	6	—	9	—	1	—
	1962	9	—	7	—	3	—
	1963	11	—	13	—	1	—
	1964	8	—	6	—	3	—
	1965	5	—	7	—	1	—
	1966	7	—	5	—	3	—
	1967	4	—	5	—	2	—

APPENDIX V

JAIL POPULATION ACCORDING TO (A) AGE-GROUPS, AND (B) PRISON TERMS, IN DARJILING DISTRICT

(A) JAIL POPULATION ACCORDING TO AGE-GROUPS : 1961-66

Age (years)	1961		1962		1963		1964		1965		1966	
	Male	Fe- male	Male	Fe- male	Male	Fe- male	Male	Fe- male	Male	Fe- male	Male	Fe- male
District Jail												
6 to 16	8	—	10	—	13	—	9	2	9	0	5	1
16 to 40	138	9	156	8	170	11	172	24	140	12	93	14
40 to 60	9	1	12	8	25	4	19	4	28	4	16	10
Above 60	1	2	3	—	5	1	2	2	2	0	1	1
Kalimpong Sub-Jail												
6 to 16	6	—	9	—	5	—	6	1	3	3	3	—
16 to 40	66	7	91	4	61	10	44	14	58	13	71	20
40 to 60	29	—	12	2	20	7	11	3	10	2	7	11
Above 60	2	1	3	—	—	—	—	—	1	2	—	—

APPENDIX V—Contd.

(B) JAIL POPULATION ACCORDING TO PRISON TERMS : 1961-66

	1961		1962		1963		1964		1965		1966	
	Male	Fe- male	Male	Fe- male	Male	Fe- male	Male	Fe- male	Male	Fe- male	Male	Fe- male
District Jail												
Not exceeding 1 month	84	11	136	12	177	16	157	28	89	12	76	24
Between 1 & 3 months	21	1	16	4	20	0	27	2	36	2	13	1
Between 3 & 6 months	7	0	5	0	6	0	4	0	20	0	4	1
Between 6 & 12 months	3	0	5	0	2	0	1	1	6	0	9	0
Between 1 & 2 years	2	0	12	0	2	0	2	1	1	2	8	0
Between 2 & 5 years	5	0	3	0	4	0	9	0	22	0	4	0
Between 5 & 10 years	32	0	1	0	0	0	0	0	2	0	1	0
Sentenced to death	0	0	3	0	2	0	2	0	3	0	0	0

APPENDIX VI
CASES TRIED BY MAGISTRATES IN DARJILING DISTRICT : 1961-67

	1961	1962	1963	1964	1965	1966	1967
No. of offences reported	8,974	7,911	8,520	8,017	7,665	6,651	5,027
No. of persons brought to trial	11,253	9,767	10,952	9,475	9,320	9,018	7,518
No. acquitted	1,370	1,415	1,629	1,187	831	1,085	1,342
No. convicted	8,271	6,826	7,677	6,919	6,367	5,511	4,022
No. committed or referred	21	50	115	64	52	54	16
No. died, escaped or transferred	600	315	410	435	547	706	375
No. under trial at end of year	991	1,161	1,121	870	1,523	1,662	1,763

APPENDIX VII
SESSIONS CASES IN DARJILING DISTRICT : 1961-67

	1961	1962	1963	1964	1965	1966	1967
No. of offences reported	20	31	45	30	35	24	22
No. of persons brought to trial	69	63	121	74	72	63	34
No. acquitted	4	31	100	41	38	40	24
No. convicted	52	25	11	13	29	15	7
No. committed or referred	—	—	—	—	—	—	—
No. died, escaped or transferred	—	1	—	—	—	—	—
No. under trial at end of year	13	6	10	20	5	8	3

APPENDIX VIII
CRIMINAL CASES IN DARJILING DISTRICT : 1961-67

	1961	1962	1963	1964	1965	1966	1967
No. of offences reported	8,994	7,942	8,565	8,047	7,700	6,675	5,049
No. of persons brought to trial	11,322	9,830	11,073	9,549	9,392	9,081	7,552
No. acquitted	1,374	1,446	1,728	1,228	869	1,125	1,366
No. convicted	8,323	6,851	7,688	6,932	6,396	5,526	4,029
No. committed or referred	21	50	115	64	52	54	16
No. died, escaped or transferred	600	316	410	435	547	706	375
No. under trial at end of year	1,004	1,167	1,131	890	1,528	1,670	1,766

APPENDIX IX

CONVICTIONS AND FINES ORDERED BY MAGISTRATES IN DARJILING DISTRICT : 1961-67

	1961	1962	1963	1964	1965	1966	1967
No. of persons prosecuted	8,271	6,826	7,677	6,916	6,367	5,511	4,022
No. imprisoned	376	358	401	476	368	642	513
No. fined	7,837	6,358	7,176	6,335	5,820	4,680	3,494
Fine imposed (Rs.)	1,60,883	1,39,834	2,01,516	2,04,755	2,43,164	2,02,880	1,09,776
Fine realized (Rs.)	1,25,545	1,10,816	1,60,623	1,60,188	1,97,514	1,45,035	85,896

APPENDIX X

CONVICTIONS AND FINES IN SESSIONS CASES IN DARJILING DISTRICT : 1961-67

	1961	1962	1963	1964	1965	1966	1967
No. of persons prosecuted	52	25	11	13	29	15	7
No. sentenced to transportation or penal servitude	—	4	2	2	4	1	2
No. imprisoned	52	21	—	11	25	13	5
Fine imposed (Rs.)	—	—	—	—	—	250	—
Fine realized (Rs.)	—	—	—	—	—	250	—

APPENDIX XI
APPEALS AND REVISION CASES IN DARJILING DISTRICT : 1961-67

	1961	1962	1963	1964	1965	1966	1967
No. of appellants and applicants for revision	235	243	226	367	302	225	477
No. of appeals or applications rejected	15	8	16	5	43	7	359
No. of sentences or orders confirmed	38	56	36	80	68	60	21
No. of sentences or orders altered	24	19	14	22	37	24	56
No. of sentence or orders reversed	47	103	54	68	62	53	10
Pending trial at end of year	105	53	122	190	73	74	25

CHAPTER XI

LOCAL SELF-GOVERNMENT

HISTORY OF LOCAL SELF-GOVERNMENT

Of the local self-government agencies in the district, the Darjiling Municipality, established on 1 July 1850, is the oldest. Unbelievable as it may seem today, it originally covered an area of 138 sq. miles from below Pankhabari to the borders of Sikkim. Upto 1900, the municipal law in force in Darjiling was the Municipal Act of 1884 which was quite inadequate to serve the intended purpose. According to O'Malley, "the landslips were in many cases due to defects which the Municipality had... no power to deal with, such as defective supervision of building sites and drainage, neglect to reduce or protect steep slopes, quarrying in unsafe localities etc."¹ Act I of 1900, therefore, conferred the following powers on the municipality. "All roads, private as well as public, and all bridges were brought under control in respect of their construction, maintenance and closure, and power was taken to enforce any alterations in them necessary to secure the stability of any hill-side or bank or any buildings situated on them. Authority was given to enforce the repair and in extreme cases, the removal of any building which threatened the security of a hill side or bank and to compel the owners to protect the sites when insecure. Similar provisions were enacted in respect of all drains, private as well as public, and power was taken to enforce the construction of revetments and retaining walls, the turfing of banks and the sloping of the hillsides to the angle of safety. A complete set of building regulations was also provided, which included full powers to regulate the excavation and preparation of building sites and to prohibit building on any site considered insecure by professional authority."² The Darjiling and the other three municipalities in the district are now subject to the Bengal Municipal Act of 1932.

Prior to 1922, many of the functions which devolved later on the rural self-government agencies were discharged by the Deputy Commissioner in his capacity as the administrator of the Darjiling Improvement Fund. The maintenance of important roads and bridges rested with the Public Works Department, but other cognate matters were under the control of the District Road Cess Committee, the functioning of which left room for the establishment of the District Board on 1 April 1922 under the Bengal Local Self-Government Act of 1885. Three Local Boards were also constituted under the same Act, covering the Sadar-Kurseong, Siliguri and Kalimpong areas. Under the same Act, "a Union Committee was established in June 1936 to control minor roads, education and sanitation work in a small residential area in the abandoned cantonment of Takdah. The Bengal Village Self-Government Act of 1919 was introduced in the District and a

L. S. S. O' Malley—*Bengal District Gazetteers : Darjeeling*, Calcutta, 1907: p. 165.

² *Ibid*, pp. 165-6.

Union Board was constituted at Siliguri in March 1938.¹ Anchal and Gram Panchayats came into existence in the rural areas of the district under West Bengal Act I of 1957 along with Anchalik Parishads at the block level and the Zilla Parishad at the district level under West Bengal Act XXX of 1963.

The following table furnishes important particulars of the four municipalities in the district (as on 31 March 1967) :

	Municipality				MUNICIPALITIES
	Darjiling	Kurseong	Kalimpong	Siliguri	
Date of establishment	1 July 1850	1 May 1879	10 July 1945	24 May 1949	
Area in sq. miles	4.35	1.95	3.35	6.00	
No. of wards	26	12	15	19	
No. of holdings	3,063	1,223	1,581	6,808	
Annual ratable value (in Rs.)	28,97,447	11,91,455	10,37,145	52,92,780	
Population (according to 1961 Census)	40,651	13,417	24,427	65,360	
No. of rate-payers	2,394	1,223	1,581	7,326	
Percentage of rate- payers to population	5.9	9.1	6.5	11.2	
Population (according to 1971 Census)	42,662	15,000	23,745	97,462	

Darjiling municipal election on the basis of adult franchise was held for the first time on 23 March 1964. The last municipal election of the Darjiling Municipality was held on 1 May 1966, while those of Kurseong and Kalimpong were held on 23 March 1964. Siliguri had its election on 26 February 1964, but the announcement of the results has been withheld under an injunction from the Calcutta High Court. As such, the old body of municipal commissioners, numbering 16, was in office till the time of writing this gazetter. Darjiling, Kurseong and Kalimpong municipalities have 26, 12 and 15 commissioners respectively, one such representative being elected from each ward.

While the Siliguri Municipality had no Standing Committee functioning in 1966-67, the other municipalities had various bodies of this nature, namely, those relating to finance and personnel, building and assessment, markets and estates, education, public health and sanitation, public works etc.

Standing Committees

¹ A. J. Dash—*Bengal District Gazetteers : Darjiling* Alipur, 1947. p. 245.

Conservancy

The Darjiling Municipality maintains 32 men for the removal of nightsoil from bucket-system latrines. Sewerage-system privies have long been introduced in the Kalimpong Municipality, which has six sweepers under a dafadar to look after the latrines and safety tanks. The Kurseong Municipality has both service and sanitary privies; the nightsoil from the former, about 35,000 gallons per day, is collected by sweepers and finally discharged into the Balasan river. The Siliguri Municipality maintains 13 nightsoil tanks and 108 men and women of various denominations for collecting nightsoil from service latrines and 9 coolies for the removal of about 3,250 gallons of sullage per day. A hygienic sewage system has been proposed for Siliguri, which is likely to take shape with the introduction of a per capita supply of 30 gallons of water per day.

Bustees

The Kurseong, Kalimpong and Siliguri municipalities have no *bustees*, as reported by the respective Chairman. There are some slum areas within the Darjiling Municipality, for the clearance of one of which, the Burdwan *bustee*, a scheme has been prepared at an estimated cost of Rs. 11,12,814.

Khatahs

The Darjiling, Kurseong and Siliguri municipalities have no *khatahs* while there are some within the municipal area of Kalimpong which that municipality is anxious to do away with. All the municipalities destroy stray and diseased dogs at regular intervals for public safety, but the Siliguri Municipality appears to have discontinued this practice since 1966.

Markets

The Darjiling Municipality maintains two markets—one in the town and the other at Jore Bungalow—on a daily toll basis. The Kurseong Municipality has very recently started a municipal market in addition to the licensed private market. There is only one licensed market at Kalimpong. Siliguri has two markets managed by the State Government. The following table gives the number of shops and restaurants situated within the four municipalities.

Name of municipality	No. of Shops	No. of restaurants (including tea shops)
Darjiling	1,512	37
Kurseong	314	59
Kalimpong	701	26
Siliguri	3,217	329

All these markets, shops and restaurants are periodically inspected by the municipal staff. The following table indicates the quantities of foodstuffs, etc., destroyed after inspection during 1966-67.

Name of commodity	Quantity destroyed (in kgs.)			
	Darjiling	Kurseong	Kalimpong	Siliguri
Fish	10	—	20	1,245
Meat	75	—	—	24
Sweets	100	—	4	—
Vegetables	200	—	—	—

All the municipalities maintain personnel and implements for cleaning the public roads and drains to the extent that their means and efficiency permit. The Siliguri Municipality has 5 refuse trailers for road-cleansing work. There are a number of burial grounds and burning ghats in all the municipalities for the cremation of the dead of various faiths.

Road cleaning and
Burial grounds

The Darjiling Municipality runs three slaughter houses. A slaughter house in Kurseong is auctioned to the highest bidder every year, besides the four licensed private slaughter houses there. A central slaughter house is now under construction at Kurseong. The Kalimpong Municipality maintains a slaughter house on contract basis. There is no slaughter house at Siliguri.

Slaughter houses

The table below indicates the length of drains (in kms.) maintained by the municipalities.

	Total length	Pucka	Cutcha
Darjiling	113	102	11
Kurseong	17	9	8
Kalimpong	36	26	10
Siliguri	329	46	283

While the Chairman of the Kurseong and Kalimpong municipalities reported that they had no drainage difficulty, their counterpart from Darjiling stated that all the drains there needed widening and repairs. Road-side drains intended to carry waste water and excess rain serve neither purpose in Siliguri. According to the Siliguri Planning Organization: "Five out of six drains are kutchha and are to no specification in shape or gradient; nor are they maintained properly to fulfil their dual roles. This has resulted in patches of filthy drains interspersed with dry and partially-blocked stretches." The Interim Development Plan

for Siliguri prepared by the Siliguri Planning Organization reads : "A network of open brick and mortar storm-water drains will be constructed to carry the rain-water to suitable outlets. An inlet time of 10 minutes will be adopted for major road drains, with less inlet time for minor roadside channels, depending on the area drained. The latter would have pitched trapezoidal sections while the former would be paved ones. A self-cleansing velocity will be maintained....The river Mahananda is the obvious drainage outfall for the municipal area but, for the eastern and south-eastern parts, the Fuleswari may be properly trained to serve as a trunk drain. This will stop further damage through erosion by this seasonal stream and will retrieve quite a sizeable acreage of valuable land for better purposes."¹

The Chairman of the Siliguri Municipality says in a report that storm-water from the area 8 to 9 kilometres north of the town enters it posing grave drainage problems which could be solved only by the Irrigation Department. Haphazard construction of houses has also added to the difficulties.

Roads

The table below shows the length of road (in kms.) maintained by the four municipalities.

Name of municipality	Total	Length of roads (in kms.)	
		Metalled	Unmetalled
Darjiling	63	36	27
Kurseong	16.49	11.89	4.60
Kalimpong	22.10	16.25	5.85
Siliguri	102.27	34.95	67.32

Street lighting

Electric street lights are maintained by all the municipalities with power supplied, in most cases, by the State Electricity Board. A fraction of the energy consumed by the Darjiling Municipality as also the entire supply of the Kalimpong Municipality are generated by themselves.

Health

The Darjiling Municipality maintains an Infectious Diseases Hospital, the Martin Dispensary, the Bloomfield Dispensary as also dispensaries at Bhutia Bustee, Aluabari, Jidraprong and Singtam which, between them, treated 15,322 patients during 1966-67. It also runs an ambulance van which attended to 360 calls in the same year. The Kurseong Municipality distributed during 1966-67, free of cost, 5,134 influenza tablets, 1,000 sulpha-guanidine tablets for dysentery, 1,000 S. N. tablets for cuts and wounds and 439 packets of medicinal ointment for use in skin diseases. It also arranged with the S. B. Dey Sanatorium, Kurseong for the supply of 100 free and 50 concessional X-Ray plates for poor patients residing within its limits.

¹ Siliguri Planning Organization—*Interim Development Plan for Siliguri* ; Calcutta, 1965 ; p.20.

The following table gives the number of primary vaccinations, re-vaccinations, and inoculations done by the four municipalities during 1966-67.

Name of municipality	No. of primary vaccinations	No. of re-vaccinations	No. of inoculations
Darjiling	605	15,830	13
Kurseong	285	5,892	—
Kalimpong	630	5,920	3,382
Siliguri	1,012	23,489	651

The table below would give an idea of the water supply arrangements of the Darjiling and Kurseong municipalities. Water Supply

	Darjiling	Kurseong
Total installed capacity of filtered water (in gallons)	10,00,000	94,526
No. of house connexions	935	683
Average per capita daily supply of filtered water (in gallons)	25	11
Average daily supply per house connexion (in gallons)	300	—

The Chairman of the Kalimpong Municipality reported that the water supply arrangements of the town were managed by the Public Health Department, which charged Rs. 250 for each house connexion and realized a water-rate of 37 paise per thousand gallons. The municipality gets its supply of water for public hydrants and flushing of latrines and drains from the Public Health Engineering Department on payment of a 1% water-rate. The later Department is now working out a scheme sanctioned during the Third Five-Year Plan period for the improvement of water supply in the town at an estimated cost of Rs. 3.28 lakhs.

As regards water supply arrangements at Siliguri, the following extract from the relevant report of the Siliguri Planning Organization would describe the position : "Three out of every ten houses visited do not have any drinking water supply of their own ; eight out of every ten houses do not find their present source of supply sufficient to meet their requirements conveniently and would welcome additional supply, especially for drinking. Shallow ring wells are the main source of water supply (65.5 per cent) and the municipality does its bit by providing 30 such wells for public use."¹ Under a scheme scheduled to cost Rs. 9 lakhs, the Public

¹ Siliguri Planning Organization—*Interim Development Plan for Siliguri*, Calcutta, 1965, p. 20.

Health Engineering Department has erected an overhead reservoir of 30,000-gallon capacity for supply of water through street taps. The report of the Siliguri Planning Organization further states : "In the initial stages, an average per capita consumption of 10 gallons is proposed for 75 per cent of the population. Obviously, the supply of water will be intermittent through street taps. This will be the predominant feature of water supply in the interim period. About 25 per cent of the population is taken to have attained a sufficient income standard to require, from the beginning, a supply of 30 gallons through individual house connections. In all new development areas the aim will be to ensure, from the outset, the proposed standard of 30 gallons of continuous water supply per person per day."¹ The Planning Organization has also recommended that the present scheme be extended by the addition of another four 80,000-gallon reservoirs, each suitably located by dividing the area into zones based on population density and demand for water, the distribution mains being suitably inter-connected with one another and also with the existing system so that, in case of failure from one source, the others could be operated.²

The Public Health Engineering Department has also taken up the Darjiling Water Supply Improvement Scheme at an estimated cost of Rs. 19,58,500 and the Kurseong Water Supply Remodelling Scheme at an estimated outlay of Rs. 11,40,586. The former aims at a daily supply of 1.4 million gallons of water by tapping 11 springs and conveying it to the existing filter house through a new 6"-8"-12" pipe line besides installing a pressure filter of 10,000 to 12,000 gallons-per-hour capacity. The scheme, when completed, will provide an additional daily supply of 2.5 lakh gallons. In the second phase of the scheme, it has been proposed to construct an additional storage lake with a capacity of 17 to 20 million gallons ; a new 9" feeder main from Senchal to the filter house ; a new 9" pipe line from the filter house to Darjiling ; the construction of a third service reservoir, and additional pressure filter and through remodelling of the existing distribution system.

The Kurseong scheme aims at an additional supply of 3.36 lakh gallons of water per day from a new head-work proposed to be constructed just below the Forest Training School for tapping 2 springs and conveying the water through a 6" pipe line to a storage tank from where it will be conveyed to the proposed service reservoirs after filtration and chlorination. The scheme also envisages a thorough remodelling of the existing distribution system.

During 1967-68, the Darjiling Municipality maintained three Primary, a Girls' Junior High and a Boys' High school while Kurseong ran two Primary schools, Siliguri ran one and Kalimpong

¹ *Ibid*, p. 32.

² *op. cit.*, p. 40.

maintained a Junior Basic School. The table below shows the number of Primary schools and libraries aided by the municipalities during the same year.

Name of municipality	No. of Primary schools	No. of libraries
Darjiling	31	6
Kurseong	11	4
Kalimpong	11	—

Siliguri aided no such institution. It, however, maintained the Terai Harasundar Public Library. Darjiling aided a Junior Basic School as well.

The number of parks maintained by the municipalities were: Darjiling—2 ; Kurseong—1 (lately requisitioned by the Government for construction of a civil supply godown) ; Kalimpong—2 ; while Siliguri had none.

Parks

The Darjiling Municipality has 9 departments, namely, General, Collection, Accounts, Cash, Education, Fire, Civil Engineering, Hydro-Electric Undertakings and Health. The General department is under the Secretary of the municipality who looks after its branches, i.e. General, Zamindary, Law, Assessment, Nezarat, Licence, Record and Markets. The Secretary also supervises the Collection, Accounts, Cash and Education departments. The Civil Engineering department is under the Municipal Engineer who has under him a number of technical and non-technical staff. The Hydro-Electric department is under an Electrical Engineer who is in overall charge of a number of sections, namely, Management, Collection, Accounts, Stores, Civil Engineering, Generation, Distribution, Sidrapong Hydro-Electric Station, Singtam Hydro-Electric Station and Lebong Diesel Generating Station. He has the assistance of a fairly large number of technical and non-technical personnel. The Health Officer looks after conservancy, public safety, hospitals and dispensaries, hygiene schemes in schools, vaccination, disinfection, slaughter houses, food and sanitation, library and ambulance with the help of a complement of technical and non-technical employees. The fire brigade is under a Captain who supervises the work of the fire-fighters and others.

Administrative set-up

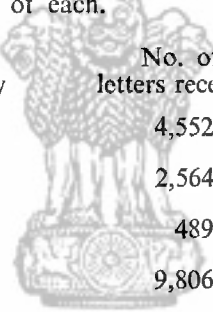
The Kurseong Municipality has 13 departments, namely, General, Collection, Water Supply, Conservancy, Vaccination, Medical, Public Works, Public Instruction, Lighting, Markets and Slaughter Houses, Veterinary, Law, and Miscellaneous. The Secretary looks after the General department while the Collection department is headed by a Tax Daroga. Similarly, the Conservancy department is run by the Superintendent of Sanitation, the Medical

department by the Medical Officer and the Public Works department by an Overseer, all of whom have the requisite complements of staff placed under them.

The Kalimpong Municipality has five departments, namely, General & Accounts, Collection, Licence and Assessment, Public Health, Conservancy and Public Works. They are manned by the usual personnel. The Kalimpong Development Block I was opened in 1956 and Block II, in 1958.

The departments of the Siliguri Municipality are—General Administration, Collection, Licence, Public Works and Sanitation and Public Health, which have the requisite number of clerical and technical staff.

The following table gives the number of letters received and issued by the municipalities during 1966-67, which may broadly indicate the work-load of each.



Name of Municipality	No. of letters received	No. of letters issued
Darjiling	4,552	4,600
Kurseong	2,564	4,306
Kalimpong	489	2,889
Siliguri	9,806	55,748

Finance

The following two tables present a broad financial picture of the municipalities during 1966-67.

Name of municipality	Total income (Rs.)	Total expenditure (Rs.)
Darjiling	29,53,789	27,92,265
Kurseong	3,69,920	3,74,298
Kalimpong	3,77,832	3,81,427
Siliguri	7,62,264	7,21,077

The ordinary sources of income are—collections from rates and taxes, realizations under special Acts, revenues derived from municipal properties and powers, taxation, grants, contributions from Government and local funds and miscellaneous, while the extraordinary sources are—sale proceeds of Government securities, loans from Government, advances and deposits etc.

The heads of receipts and expenditure are given in detail in Appendix I to this chapter.

The Zilla Parishad took over the District Board and started functioning on 25 November 1964. In 1966-67, the Darjiling Zilla Parishad had 36 members, of whom 33 were men and 3 women; 3 belonged to Scheduled Tribes and none to the Muslim community. There were 7 Standing Committees relating to Finance and Establishment, Public Health, Public Works, Agriculture and Irrigation, Industry and Co-operation, Public and Social Welfare and Primary Education.

DARJILING ZILLA
PARISAD

The Executive Officer runs the office, while the technical wing is headed by the District Engineer, both of whom have under them the requisite complements of technical and non-technical personnel. The Zilla Parishad stood superseded till elections in 1978.

To relieve the chronic scarcity of water in the rural areas of the district, the Parishad took up 58 water-supply schemes during 1965-67, of which 16 were piped water-supply and 42 ring water-supply schemes covering nearly as many villages.¹

Rural water supply
schemes

The district had 10 Anchalik Parishads during 1966-67, the composition of each of which is shown in the table below :-²

Anchalik Parishad

Name of Anchalik Parishad	No. of Members		
	Total	Men	Women
Darjiling-Pulbazar	20	18	2
Rangli-Rangliot	17	14	3
Jore Bungalow-Sukhiapokhri	14	13	1
Kalimpong-I	28	26	2
Kalimpong-II	23	21	2
Gorubathan	16	15	1
Siliguri-Naksalbari	25	23	2
Kharibari-Phansidewa	27	25	2
Mirik	11	9	2
Kurseong	15	12	3
Total	196	176	20

¹ Source : Executive Officer, Darjiling Zilla Parishad.

² Source : Director of Panchayats, West Bengal.

All the Anchalik Parishads were predominantly membered by Hindus ; out of a total membership of 196, 41 belonged to Scheduled Castes, 24 to Scheduled Tribes and 4 to the Muslim community. The following table depicts the representation of Scheduled Castes and Scheduled Tribes on these bodies.

Name of Anchalik Parishad	No. of Members	
	Scheduled Caste	Scheduled Tribe
Darjiling-Pulbazar	1	2
Rangli-Rangliot	1	3
Jore Bungalow-Sukhiapokri	1	3
Kalimpong-I	1	1
Kalimpong-II	1	6
Gorubathan	3	1
Siliguri-Naksalbari	14	3
Kharibari-Phansidewa	17	1
Mirik	1	2
Kurseong	1	2
Total	41	24

Each Anchalik Parishad has a number of Standing Committees relating to finance & establishment, public health, public works, agriculture and irrigation, industry and co-operation, public and social welfare and primary education. The Anchalik Parishads stood superseded till the elections in 1978.

Anchal Panchayats

The table below¹ indicates the Anchalik Parishadwise number of Anchal Panchayats along with their respective membership.

Name of Anchalik Parishad (1966-67)	No. of Anchal Panchayats	No. of members of Anchal Panchayats		
		Total	Men	Women
Darjiling-Pulbazar	6	49	48	1
Rangli-Rangliot	4	36	36	—
Jore Bungalow-Sukhiapokhri	3	16	16	—
Kalimpong-I	9	63	62	1
Kalimpong-II	7	65	65	—
Gorubathan	3	26	26	—
Siliguri-Naksalbari	8	78	78	—
Kharibari-Phansidewa	10	—	—	—
Mirik	1	12	11	1
Kurseong	3	37	37	—
Total	54	382	379	3

1 Source : Director of Panchayats, West Bengal.

Anchal Panchayats had in all 8 muslim members of whom one belonged to an Anchal Panchayat within Kalimpong-I Anchalik Parishad, while the rest were members of Anchal Panchayats within the Siliguri-Naksalbari Anchalik Parishad. The Scheduled Caste and Scheduled Tribewise break-up was as is shewn in the following table.¹

Name of Anchalik Parishad (1966-71)	No. of Scheduled Caste members	No. of Scheduled Tribe members
Darjiling-Pulbazar	—	6
Rangli-Rangliot	2	9
Jore Bungalow-Sukhiapokhri	—	3
Kalimpong-I	1	17
Kalimpong-II	1	16
Gorubathan	4	—
Siliguri-Naksalbari	38	12
Kharibari-Phansidewa	—	—
Mirik	—	—
Kurseong	—	3
Total	46	66

A Secretary supervises the day-to-day business of each Anchal Panchayat, which, between them, employed 60 Chowkidars and 9 Dafadars in 1966-67. At present there are 55 Anchal Panchayats with 453 members. Statistics of receipts and expenditure of Anchal Panchayats will be found in Appendix II.

In a panchayati system of local self-government, the Gram Panchayats are the ultimate constituent units of the Anchalik Parishads. Their number under each Anchalik Parishad in the

¹ Source : Director of Panchayats, West Bengal.

district and membership in 1966-67 are shown in the following statement.

Name of Anchalik Parishad	No. of Gram Pan-chayats	Members					
		Total	Male	Female	Sche- duled Caste	Sche- duled Tribe	Mus- lim
Darjiling-Pulbazar	23	273	270	3	6	35	1
Rangli-Rangliot	14	122	121	1	4	34	—
Jore Bungalow-Sukhiapokhri	9	103	102	1	—	19	—
Kalimpong-I	30	307	305	2	18	61	1
Kalimpong-II	15	157	155	2	1	48	—
Gorubathan	10	104	104	—	15	—	—
Siliguri-Naksalbari	40	391	383	8	177	91	20
Kharibari-Phansidewa	59	—	—	—	—	—	—
Mirik	7	63	63	—	1	5	—
Kurseong	11	129	122	7	11	10	—
Total	218	1,649	1,625	24	233	303	22

The number of Gram Panchayats remained the same in 1970-71.

The Gram Panchayats work with very limited funds and thus can bring only nominal benefits to the communities they serve. The statement in Appendix III gives receipt and expenditure figures for 1966-67 of Gram Panchayats grouped under the various Anchalik Parishads of which they are the respective constituent units.

A Government agency peculiar to the district is the Darjiling Improvement Fund. Its functions are of such local importance that they are best described by quoting, *in extenso*, from a very informative official report.¹

"In 1838, the Government of India directed that the quit rents paid by the settlers in the ceded portion of Darjeeling should be appropriated to a fund to be called the Location Fund, and

¹ Government of Bengal (Revenue Department)—*Report on an Enquiry into the Working of the Darjeeling Improvement Fund etc.*, Alipore, 1941 ; pp. 6-7.

employed for conservancy and for purposes of local improvement. The rent of certain bazaars built out of this fund, and of other shops erected on the public lands, were afterwards added to the fund. And in 1854 it was decided by Government...that all the proceeds from land in the ceded tract of Darjeeling should be given up for local purposes." In January 1864 Government decided that "the sum of Rs. 5,24,705, already realised on account of land sold under the new rules in January last, as well as all other money already realised on account of such lands, must be carried to credit of Government, but that, all the balance in hand arising from other sources should...belong to the Municipal Fund." In July of the same year, another decision was taken to keep the 'Municipal Fund' separate from the 'Location Fund' which was thereafter to be known as the Darjiling Improvement Fund comprising quit rents and rents of old Darjiling territory, communication money, purchase money of waste lands in the originally ceded territory and Ghumpahar forests receipts. Road Cess became leviable throughout the district from 1877 and it was decided that the income from location rent, farming leases, ferry leases, profits from *hats* and rent from all Government *hats* and bazaars as also receipts from Rangiroon should also be credited to this Fund.

"It was also decided by the Government that the income of the Darjeeling Improvement Fund would be spent in future for the maintenance of Rangiroon *hats*, ferries, etc., in Terai, and frontier roads, bungalows and miscellaneous."

A set of account rules was framed for the Fund in 1912. With the establishment of a District Board in Darjiling in 1922, some of the Fund's functions relating to medical, education, veterinary and sanitation were transferred to that body under the proviso that the Fund would contribute Rs. 50,000 to the Board per annum. "Under this order a set of new administrative rules for the management of the Darjeeling Improvement Fund was sanctioned by the Government of Bengal after consulting the Accountant-General, Bengal. In these rules the scope of the Fund has been defined." In 1929 a question was raised by the Accountant-General that either the Darjiling Improvement Fund should be transferred to a local body or it should be incorporated in Government accounts. The then Deputy Commissioner of Darjiling opposed this move and in July 1934 the Government of Bengal sought the approval of the Auditor-General in India to accord his sanction to the opening of a Personal Ledger Account to be operated by the Deputy Commissioner, which was accorded in April 1935.

"It will thus be seen that the lands under the charge of the Darjeeling Improvement Fund are Government lands ; that only their revenue has been assigned to the Darjeeling Improvement Fund or the improvement of the district and that the revenue of

the Fund so far is Government revenue although it is not included in the Provincial Budget. It was also decided by Government that the employees of the Darjeeling Improvement Fund are quasi-Government servants and they are guided by Government rules. Toll collection in the different hats and bazars was first introduced in the year 1901. It was subsequently revised in the year 1921. and in the year 1932."

The overall management of the D. I. Fund rests with the Board of Revenue, West Bengal. The Deputy Commissioner of Darjiling is its Administrator and he works under the general supervision of the Commissioner, Jalpaiguri Division. The Subdivisional Officers of Kalimpong, Kurseong and Siligui and the Deputy Collector in charge of D. I. Fund at Sadar look after the working of the Fund within their respective jurisdictions. Besides a number of dak bungalows, the Fund maintains 30 *hats* and bazaars and employs a staff of 110 of various categories.

The following two tables give receipt and expenditure figures of the D. I. Fund in recent years.

RECEIPTS OF DARJILING IMPROVEMENT FUND : 1964-67

	1964-65	1965-66	1966-67
	Rs.	Rs.	Rs.
Location rent	487	1,042	1,042
Rent from farming leases	13,134	17,985	19,639
Rent from permanent holdings	79,748	85,522	68,827
Toll collection from hats	2,08,361	2,37,629	2,49,947
Conservancy tax	6,640	6,184	5,865
Education cess	2,708	1,459	1,115
Dak Bungalow fees	9,347	6,866	7,399
<i>Salami</i> from new settlements	7,192	14,651	10,145
Slaughter house fees	4,101	8,036	10,610
Receipts from garden & merry-go-round	671	419	587
Sale proceeds	102	178	47
Rent from temporary holdings	2,260	2,307	1,302
Refund of pay etc.	538	8,231	727
Interest and penalty	5,436	5,201	3,174
Advance	4,077	4,988	7966
Deposit	516	25,800	6,000
Total	3,45,318	4,26,498	3,94,392

EXPENDITURE OF DARJILING IMPROVEMENT FUND : 1964-67

	1964-65 Rs	1965-66 Rs.	1966-67 Rs.
Miscellaneous refund	80	32	49
Pay and allowances of collecting staff	94,190	97,119	1,17,258
Land Revenue and contingency of hats	16,218	15,244	17,194
Pay and allowances of clerks and peons	16,264	17,452	20,803
Printing, Contingency etc.	22,010	9,905	10,659
Pay and allowances of Bungalow Chowkidars	7,188	8,499	10,948
Furniture etc.	4,814	492	456
Contribution to Zilla Parishad	44,220	47,423	46,210
Contribution to Natural History Museum	3,000	3,000	3,000
Contribution to Kalimpong Municipality	19,214	19,776	16,233
Miscellaneous Contributions	1,000	—	—
Miscellaneous grants	3,800	4,595	2,200
Provident Fund contribution	5,860	6,414	6,485
Civil Works	70,359	69,648	11,751
Advance	4,021	8,211	5,450
Deposit	254	226	25,000
Total	3,12,492	3,08,036	2,93,691

Two small areas in Jalapahar and Lebong adjacent to Darjiling town, which are mainly military encampments, are administered by Cantonment Boards. Their particulars are shown in the statement below.

CANTONMENT
BOARDS

	Name of Cantonment Board	
	Jalapahar	Lebong
Year of establishment	A.D. 1845	A.D. 1889
Area	298.68 (acres)	164.51 (acres)
Population (a) Civil	728	495
(b) Military	1,033	1,364
Total income in 1966-67 (Rs.)	1,07,015.85	1,08,907.79
Total expenditure in 1966-67 (Rs.)	1,00,584.63	1,04,734.25

Each Cantonment Board consists of an elected representative, an *ex-officio* member and a nominated member, the latter being the Station Commander and an army officer of the rank of a Major respectively. As laid down by the Cantonments Act of 1924, the Boards discharge functions analogous to those of municipalities. For this purpose they have two *ad-hoc* committees each, namely, the Ways and Means Committee and the Assessment Committee. The former looks after the finances of the Board while the latter attends to all matters relating to assessment and realization of rates and taxes. The Boards may, subject to such conditions as

may be laid down by the State Government, manage any property entrusted to their care on sharing of rents and profits determined under the provisions of Sec. 280 of the Cantonments Act which assigns certain discretionary functions to the Boards.

The following is an account of the performance of the two Boards during 1966-67. The Military Engineering Services supply water to the Jalapahar Cantonment from the Senchal Lake and to Lebong from the Darjiling water supply system. A scheme for the augmentation of water supply for Lebong is yet to be completed. The Jalapahar Cantonment maintains 7 incinerators for the military and 2 for the civil population and employs 24 sweepers and 5 conservancy majdoors under a jamadar. Lebong has 4 incinerators and the usual complement of conservancy staff. The Jalapahar Board maintained during 1966-67 an outdoor dispensary under a part-time civilian doctor. The prevailing diseases are upper respiratory infections, intestinal diseases, mostly diarrhoea and dysentery, and skin infections. The Boards undertake periodical preventive measures like vaccination and inoculation. In 1966-67, the Jalapahar Cantonment Board spent Rs. 8,150 on public works intended to provide civic amenities to the resident population. The corresponding expenditure incurred by the Lebong Board for the same year was Rs. 14,417. In the same year, the Jalapahar and Lebong Cantonment Boards spent Rs. 10,350 and Rs. 13,300 for running two primary schools, each manned by 7 teachers and having 271 and 239 students respectively. There is also a market in each of the Cantonments maintained by the Boards.

The following two tables furnish receipts and expenditure figures (in Rs.) of the Cantonment Boards for 1966-67.

RECEIPTS OF CANTONMENT BOARDS IN DARJILING
DISTRICT : 1966-67

(Figures are in rupees)

Head of Income	Cantonment Board	
	Lebong	Jalapahar
House tax	1,164	3,091
Conservancy tax	832	2,360
Lighting tax	640	1,423
Water tax	1,081	3,721
Tax on trade & profession	1,739	...
Central grants :		
(a) Ordinary	42,400	47,400
(b) Special	13,000	6,200
State grants :		
(a) for primary school	1,658	1,390
(b) for conservancy		2,205

EXPENDITURES OF CANTONMENT BOARDS IN
DARJILING DISTRICT : 1966-67

(Figures are in rupees)

Head of Expenditure	Cantonment	Board
	Lebong	Jalapahar
Pay & allowances for general administration	8,054	7,076
Other establishments including military conservancy establishment set up agreement	76,588	65,223
Development work	12,997	6,200
Maintenance work	1,420	1,950
Other contingent expenditure	4,776	18,786
Advance/Deposits	900	1,349

Each Board has an Executive Officer whose duties, as laid down by the Cantonments Act, are as follows. "The Executive Officer shall perform all the duties imposed upon him by or under this Act, and shall be responsible for the custody of all the records of the Board, and shall arrange for the performance of such duties relative to the proceedings of the Board or of any Committee of the Board or of any Committee of Arbitration constituted under this Act, as those bodies may respectively impose on him, and shall comply with every requisition of the Board, on any matter pertaining to the administration of the cantonment.

"The Executive Officer may, in cases of emergency, direct the execution of any work or the doing of any act which would ordinarily require the sanction of the Board and the immediate execution or doing of which is, in his opinion, necessary for the service or safety of the public, and may direct that the expense of executing such work or doing such act shall be paid from the cantonment fund, provided that—(a) he shall not act under this section without the previous sanction of the President or, in his absence, of the Vice-President ; (b) he shall not act under this section in contravention of any order of the Board prohibiting the execution of any particular work or the doing of any particular act ; and (c) he shall report forthwith the action taken under this section and the reasons therefor to the Board."¹

¹ *Ibid*, pp. 34-5.

Besides the Executive Officer, each Board has a Cantonment Superintendent ; the other important executives include the Head Master of the primary school, a part-time Military Medical Officer, a part-time civilian doctor, a Sanitary Inspector, etc., who are assisted by the usual complement of office staff.

THE NEW ACT

The West Bengal Panchayat Act, 1973 provides for a three-tier system of Panchayat bodies, namely, the Zilla Parishad, the Panchayat Samitis and the Gram Panchayats.

The elections to the Panchayat bodies under the aforesaid Act were held in 1978.

The results in that election were as follows :

PANCHAYAT ELECTIONS IN DARJILING DISTRICT : 1978

	Parties	
	Name	Seats obtained
Zilla Parishad (20 Seats)	C. P. I. (M)	6
	Congress (I)	3
	Forward Bloc	1
	Others	10
Panchayat Samitis (194 Seats)	C. P. I. (M)	41
	R. S. P.	4
	Congress (I)	15
	C. P. I.	1
	Congress	2
	Others	131
Gram Panchayats* (1,151 Seats)	C. P. I. (M)	219
	R. S. P.	9
	Forward Bloc	11
	Congress (I)	92
	C. P. I.	9
	Congress	10
	Others	796

*Results of some seats are yet to be known (30 June 1978).

APPENDIX I

RECEIPTS & EXPENDITURE OF MUNICIPALITIES IN
DARJILING DISTRICT

A. RECEIPTS

(Figures are in rupees)

	Darjiling	Kurseong	Kalimpong	Siliguri
1. Rates and taxes				
(a) Houses and lands	2,26,479	1,21,918	85,304	2,71,429
(b) Water rate	86,295	13,121	5,742	—
(c) Lighting rate	49,333	18,636	17,563	56,124
(d) Conservancy	1,24,714	58,694	37,427	1,67,977
(e) Miscellaneous	38,548	13,568	13,288	1,01,483
(f) Total	5,25,369	2,25,937	1,59,324	5,97,013
2. Realization under special Acts	52,295	—	41	5,659
3. Revenue derived from municipal properties and powers apart from taxation	13,65,639	4,487	35,427	14,236
4. (1) Govt. grants and contributions				
(a) Development	1,14,942	36,914	40,886	21,734
(b) Roads	19,142	—	—	—
(c) Subvention	2,05,370	24,019	25,597	39,650
(d) Education	2,63,186	184	2,222	—
(e) Medical	32,173	—	—	—
(f) M. V. Tax	54,370	25,738	9,623	30,885
(2) Contribution from local funds and others	1,843	—	16,233	—
(3) Total grants and contributions	6,91,026	86,855	94,561	92,26
5. Miscellaneous	1,41,754	6,554	37,537	3,866
6. Total Ordinary income	27,76,083	3,23,833	3,26,890	7,13,043
7. Extraordinary income				
(1) Advances	1,53,146	33,638	25,029	31,465
(2) Deposits	24,560	12,449	25,913	17,756
(3) Total	1,77,706	46,087	50,942	49,221

DARJILING

B. EXPENDITURE

(Figures are in rupees)

	Darjiling	Kurseong	Kalimpong	Siliguri
1. (a) General administration	95,028	22,490	21,864	32,484
(b) Collection of taxes	51,278	16,462	19,407	53,915
(c) Miscellaneous	14,254	44	13,384	—
(d) Total	1,60,560	38,996	54,655	86,399
2. Public safety	9,21,628	14,558	21,773	37,265
3. Public health and convenience				
(a) Water supply : capital outlay	—	—	6,865	—
(b) Water supply : Establishment	72,480	28,086	3,221	480
(c) Drainage : capital outlay	—	—	77,175	10,450
(d) Drainage : establishment	19,030	8,318	1,556	20,005
(e) Conservancy	2,86,636	90,240	76,008	2,35,942
(f) Health, sanitation etc.	1,21,060	13,320	32,304	21,710
(g) Markets, pounds etc.	34,666	16,201	—	—
(h) Public works : roads	71,542	69,507	93,667	1,49,388
(i) Public works : others	2,03,766	10,178	21,253	45,594
(j) Total	17,30,808	2,35,850	2,30,229	4,83,569
4. Public instruction				
(a) Schools and colleges	1,05,209	23,299	12,861	3,655
(b) Contributions	2,32,802	4,518	1,022	8,269
(c) Total	3,38,011	27,817	13,883	11,924
5. Miscellaneous	1,95,737	19,651	12,798	41,455
6. Total ordinary expenditure	24,26,117	3,36,872	3,33,788	6,60,612
7. Extraordinary heads				
(a) Investment in securities	75,000	500	—	—
(b) Advances	1,81,885	12,562	29,736	37,643
(c) Deposits	16,990	15,499	12,867	9,006
(d) Repayment of loans	92,273	8,865	5,036	13,816
(e) Total	3,66,148	37,426	47,639	60,465

APPENDIX II
RECEIPTS AND EXPENDITURE OF ANCHAL PANCHAYATS*
(A) RECEIPTS OF ANCHAL PANCHAYATS : 1966-67

(Figures are in rupees)

Name of Anchalik Parishad	Opening balance	Realisation of tax, fees etc. u/s 57 (1) (a) (b) and 57 (2)	From Grants and Contributions by the Panchayats Dept.			From Grants and Contributions			Total Income
			For maintenance of Dafadars and Chowkidars	Salary of Secretary	Lump Grant for development works	By the Anchalik Parishad	By other Departments	From other sources	
Darjiling-Pulbazar	8,809	3,181	540	6,677	7,800	—	—	977	27,983
Rangli-Rangliot	7,036	669	720	3,569	4,000	1,000	—	217	17,210
Jore Bungalow-Sukhtapokhri	4,476	672	540	2,328	3,600	—	1,593	224	13,433
Kalimpong-I	13,169	2,285	—	9,232	11,700	1,287	—	658	38,331
Kalimpong-II	13,626	205	—	7,042	9,100	—	—	23	29,997
Gorubathan	3,023	136	150	2,723	3,900	—	—	14,953	24,886
Siliguri-Naksalbari	27,574	18,050	9,770	7,379	10,400	—	—	3,940	77,113
Kharibari-Phansidewa	—	—	—	—	—	—	—	—	—
Mirik	1,466	544	420	1,080	1,000	—	—	—	4,509
Kurseong	2,658	1,913	345	2,156	3,900	14,105	—	254	25,330
Total :	81,837	27,655	12,485	42,186	55,400	16,392	1,593	1,246	2,58,792

(B) EXPENDITURE OF ANCHAL PANCHAYATS : 1966-67

(Figures are in rupees)

Name of Anchalik Parishad	Establishment Charges			Allotment		Misc.	Total Expenditure	Closing Balance
	Salaries for Chowkidars and Dafadars	Salaries, Allowances for A.P. Secretaries	Maintenance of office and supply of equipments	to Gram Panchayats for development works	Other expenditure for developments works			
Darjiling-Pulbazar	1,048	7,003	1,336	4,801	4,391	1,940	20,518	7,465
Rangli-Rangliot	1,350	4,061	685	3,547	1,074	528	11,245	5,965
Jore Bungalow-Sukhiapokhri	1,120	2,291	563	3,188	—	99	7,261	6,272
Kalimpong-I	—	9,231	1,044	3,904	754	2,271	17,204	21,127
Kalimpong-II	—	7,042	1,116	5,855	—	1,591	15,604	14,393
Gorubathan	300	2,902	150	1,000	14,953	576	19,882	5,004
Siliguri-Naksalbari	18,368	12,694	5,887	7,930	—	3,003	47,881	29,232
Kharibari-Phansidewa	—	—	—	—	—	—	—	—
Mirik	900	1,080	467	820	199	45	3,512	998
Kurseong	1,055	2,656	1,778	2,626	14,105	130	22,349	2,981
Total :	24,141	48,960	13,026	33,671	35,476	10,183	1,65,456	93,337

*Source : Director of Panchayats, West Bengal.

APPENDIX III

RECEIPTS AND EXPENDITURES OF GRAM PANCHAYATS*
1966-67 :

(Figures are in rupees)

Name of Anchalik Parishad	Receipts				Expenditure		
	Opening balance	Allot- ment from Anchal Pancha- yats	Receipts from other sources	Allot- ment for specific works	Total	For deve- lopment works	Total expen- diture
Darjiling- Pulbazar	1,625	4,801	—	—	6,426	5,603	5,603
Rangli- Rangliot	1,271	3,547	—	—	4,818	3,070	3,070
Jore Bungalow- Sukhia- pokhri	1,300	3,188	271	1,593	6,353	2,917	3,645
Kalimpong-I	12,013	3,904	293	—	16,209	7,590	7,590
Kalimpong-II	5,006	5,855	150	2,062	13,074	5,869	5,869
Gorubathan	2,556	1,000	—	—	3,556	1,057	1,057
Siliguri- Naksalbari	1,600	7,629	—	—	9,296	6,813	7,310
Kharibari- Phansidewa	—	—	—	—	—	—	—
Mirik	389	820	544	—	1,753	725	1,167
Kurseong	469	2,625	199	—	3,294	1,402	2,347
Total :	26,280	33,369	1,457	3,655	64,773	35,046	37,658

*Source : Director of Panchayats, West Bengal.

CHAPTER XII

EDUCATION AND CULTURE

Traditional Education

The Lepchas were the earliest inhabitants of Darjiling. By the beginning of the 17th century a large group of Bhutias from the Kham-Andong region of Eastern Tibet settled in the district. At that time, besides the Lepchas, the Limbus (whose lands were later annexed by Nepal and who themselves were Hinduized and integrated into the Nepalese body politic as one of the Nepalese ethnic groups) lived in this area. The Lepchas and the Limbus were pre-literate peoples, professing their own animistic religions. Lahtsun Chhembo, the *guru* of the first king of Sikkim, Penchoo Namgyal, introduced Lamaist Buddhism into this area and the Lepchas soon accepted the new faith. The script of the Lepcha language too was evolved about this time after the roundular variety of the Tibetan script known as *Bu-can* (pronounced as *U-che*). The total bulk of the contemporary literature written in the Lepcha script would not be more than a hundred volumes, being translations from Tibetan of Lamaist Buddhist scriptures which conveyed knowledge of beliefs and practices of Lamaist Buddhism.¹

Throughout the 18th and 19th centuries parochial education in Lamaist Buddhist scriptures and rituals was provided by the monasteries. No monastery in Darjiling was established before the closing decades of the 18th century and this continued to be the only form of education available to the inhabitants. Opportunity to receive even this form of parochial education was reserved to men alone who chose to become monks or *lamas*. No other person, except of royal lineage, could have it. Lamahood was held in such high esteem among the Bhutias and the Lepchas that families having more than one son would release one, usually the second, from family ties and duties so that he could become a monk.

A physically fit *Gra-pa* (student) had to take his first lessons in alphabet, principles of speech, elementary ways of ritual practices and commandments and directions of *Tathagata* (Buddha) and of the founding fathers of the monastic order to which he belonged, from a monk among his relatives who would act as his *guru*, or in absence of such a relative, from another monk who would be assigned this task by the monastic order after consultation of the horoscope of the novice. After the successful completion of this primary phase of education a probationer used to become a *dGen-yen* or *dGe-thsul* or a *sramana*. But before being admitted into this order, his lineage was taken into consideration, a high

¹ C.de Beauvoir Stocks—'Folk-lore, and Customs of the Lap-chas of Sikkim' in the *Journal and the proceedings of the Asiatic Society of Bengal*, Vol.xxi, No. 4, Calcutta, 1925, p. 333.

premium being attached to Tibetan or semi-Tibetan descent. A Lepcha was normally asked to pay a heavy fine, failing which the monastic order would be reluctant to provide him with further education.

The education of a *sramana* or candidate *lama* used to consist of lessons in the intricacies and performance of rituals, higher scriptures etc. He had to pass three successive examinations to qualify for monkhood. After becoming a monk of the middle order, a *lama* could gain further qualifications in two ways, namely, by going in for still higher personal studies in theology and meaning of rituals and write commentaries on them, or devoting himself to long spells of meditation at desolate places. The opportunity for the first was not available in either Sikkim or in Darjiling, since the monastic libraries were not properly equipped and one had to go to Tibet or Mongolia for it. The *lamas* of Sikkim and Darjiling, therefore, used to go in for spells of meditation which equipped them with requisite qualifications to rise to the highest posts in the lamaistic hierarchy.

There had possibly been no monastery in Darjiling district before the last quarter of the 18th century. Lamas who worked in the then southern part of Sikkim—now included in Darjiling district—were mostly from monasteries in Sikkim, where they had had their education. The oldest monastery in Darjiling was perhaps the one that once stood on the Observatory Hill in Darjiling town and was destroyed by the Gorkhas in the early part of the 19th century. It was a branch of the monastery of the *Kar-tok-pa* sub-sect at Do-ling or Dorjeling in Sikkim. The Phodang monastery at Bhutia-basti in Darjiling town also seems to have been set up late in the 18th century as a branch of the Phodang monastery in Sikkim of the *Karma-pa* sub-sect. The education provided by them was only for the members of the *Kar-tok-pa* and the *Kurma-pa* sub-sects respectively; other sects and sub-sects had to seek education in the monasteries of their respective orders in Sikkim or Tibet.

The *gompas*¹ usually situated a little distance away from the *bastis*, contained libraries for the benefit of the students and monks. Among the books preserved there, the pride of place went to two great lamaist encyclopaedias—the *Kah-gyur* or *Kan-gyur*, the Tibetan translation of the ancient Sanskrit book of Mahayani

¹ Monasteries of Darjiling are of three kinds, namely, *Tak-phu*, *Gompa* proper and *hLa-khang*. *Tak-phus* are cave-hermitages situated at solitary places. *Gompas* are usually situated some distance away from the *bastis* and *hLa-khangs* are really temples situated in the *bastis* where ministering *lamas* reside and cater to the religious needs of the villagers. The *hLa-khangs* are also called *gompas* in popular parlance. The ministering *lamas* of the *hLa-khangs* can act as '*gurus*' to the students during the days of primary education, but for proper education the *sramanas* have to go to the *Gompas* proper which alone contain libraries.

Buddhist commandments and the *Tan-gyur*, the book of commentaries by Indian and Tibetan savants on the Mahayani Buddhist precepts. A late 18th century edition of the *Kan-gyur* printed from wooden blocks in Tibet, runs into 108 volumes of 1,000 pages each and a contemporary edition of the *Tan-gyur* runs into more than 225 volumes. Understandably, no *gompa* library in Darjiling or even in Sikkim, excepting that at the Pemiongehi monastery of Sikkim, possessed all the volumes of these massive texts. Many of them, however, had abridged editions running into a few volumes. Each monastic library also aspired to possess one or more volumes of the legendary accounts and sayings of the great wizard-saint and founder of the *Nyingma-pa* or the red-sect, Guru Rimpochhe or Padmasambhava ; some texts on the life and works of Lahtsun-chhembo, the pioneer lama of Sikkim ; a few works on the accounts and sayings of the founding fathers of the particular sect or sub-sect to which the monastery belonged besides a manuscript volume on the history of the monastery itself. Books on customary worship and ritual and text books for probationers and learners were essential acquisitions of monastic libraries. Most of the books were block-printed on loose leaves of Tibetan handmade paper.¹

This was the state of education in the district when the East India Company stepped in. For the subsequent introduction of modern secular education, the district owes much to the efforts of various European Christian missions.

A large number of Europeans (mainly British) sojourned or settled in Darjiling town since its inception and arrangements had to be made for the education of their children. The early schools that were set up in Darjiling, Kurseong and Kalimpong by the Christian missionaries were, accordingly, designed to "provide for European and Anglo-Indian children that type of education and upbringing to which the parents had been accustomed in their native country."² Their curricula resembled those followed by schools in England. They were also so expensive that only European civilian and military personnel, businessmen and business executives, and latterly, a handful of rich Indians could afford to send their children there. It would, however, be unfair to conclude that these early educational endeavours were designed to benefit European and Anglo-Indian children alone. For, soon afterwards, we find some of the European Christian missions trying to set up elementary schools for local Lepcha and Bhutia children although the financial investment made on them was a mere fraction of the outlay on those meant

1 The section is based on L. A. Waddell's 'Lamaism in Sikkim' in H. H. Risley *et al*—*The Gazetteer of Sikkim* ; Calcutta, 1894, pp. 241-304. For a detailed description of the Darjiling monasteries, see the Appendix by Lama Nima Norbu at the end of this chapter.

2 A. J. Dash—*Bengal District Gazetteers : Darjiling* ; Calcutta, 1947 ; p.27 1

for European and Anglo-Indian children.¹ Moreover, while the European and Anglo-Indian children could get advanced school-level education, the native boys and girls, till about the third decade of the 20th century, could only go up to the Middle English standard, except in two or three institutions. The earliest of the European schools in the district was the Loreto Convent for girls founded in 1846, managed by the Loreto nuns (Irish Roman Catholic Loreto Order), who have their mother institution in Rathfarnham, Dublin. The original building of the school was at Sun Hill where teaching continued until a more spacious building on the present site could be completed. That building was replaced in 1892 by the main building now in use. A concert hall was later added and in 1925 a class-room building, a hospital and a large skating rink were constructed.

Loreto Convent,
Darjiling

Bishop Cotton had been advocating the establishment of hill schools for Europeans. He raised funds by private subscription and Government made an equivalent contribution. By this means a sum of Rs. 1,12,300 was collected and it was invested in 1868 in the form of an endowment to establish the St. Paul's school at Darjiling. The prosperity of the school then declined ; it suffered from a growing tendency on the part of Anglo-Indian parents to send their children home to be educated, and also from the competition of the Roman Catholic St. Joseph's College.² But it carried on somehow.

St. Paul's School,
Darjiling

The St. Paul's School became the first college in the district, when in 1880-81 it received affiliation from the University of Calcutta to conduct classes for preparing students for the First Arts (later, Intermediate Arts) examination of that University.³ But around 1900 the College Department was reported to be in a declining state.⁴ The school, comprising a number of buildings, housing, well-equipped laboratories, library, class rooms etc., a couple of hostels and a chapel, is situated about 500 feet above Darjiling town in an extensive campus commanding a fine view of the snows.

¹ According to the Annual Report on the Administration of the Bengal Presidency during the year 1871-72 (p. 240), the Government made a total grant-in-aid of Rs. 2,300 for the Lepcha and Bhutia Boarding School and the Anglo-Vernacular School both wholly managed by the State, while in 1881 one aided European school alone, namely, the Darjeeling (Diocesan) Girls' School spent around Rs. 12,000 (which did not include the salaries to the teachers paid by the Government) on its maintenance. *Vide* Annual Report of the Administration of Bengal during the year 1881-2, p. 335.

² L. S. S. O'Malley—*Bengal District Gazetteers : Darjeeling* Calcutta, 1907, pp. 178-9.

³ *Annual Report of the Administration of the Bengal Presidency during the years 1881-2* (p. 383), 1885-6 (p. 313), 1886-7 (p. 305) and 1892-3 (p. 559).

⁴ *Annual Report of the Administration of the Bengal Presidency during the year 1898-99* ; p. 307.

Victoria Boys' School, Dow Hill, Kurseong

The Victoria School at Dow Hill, Kurseong is the oldest school for Europeans around the town. It was founded at Constantia in 1879 by Sir Ashley Eden as a co-educational institution but was removed to Dow Hill in 1880. In 1897 the boys' and the girls' wings were separated, the latter continuing to occupy the old premises while the former moved out to a new building under its present name, the Victoria Boys' School. It has been a Government school since its inception. Situated on an extensive campus with fine playgrounds, the school is housed in a fairly large building with an assembly hall, gymnasium, class rooms, well-equipped laboratories and a library. There are two hostels for the students.¹

Dow Hill Girls' School, Kurseong

The Dow Hill Girls' School started functioning as a Middle English school in 1898, allowing boys up to the age 8½ years to study in the primary classes. It is also a Government school since its inception, originally intended to teach only the children of Government servants of the Anglo-Indian and European communities. It occupies a site just below that of the Victoria Boys' School and has excellent buildings on an extensive campus. There is a hospital which serves both the schools.

St. Michael's School, Darjiling

In 1886 Bishop Milman of Calcutta founded the Darjiling Girls' School which in 1895 was handed over to the Mission of the Sisters of the Order of St. John the Baptist when it became a Diocesan School with the Metropolitan of India, Burma and Ceylon as the President of its Governing Body. In 1929 it took its present name—St. Michael's School. The institution is now defunct.

It was in 1888² when Father Henry Depelchin founded a small school named St. Joseph's at the Sunny Bank in Darjiling town that the foundation of what was to be the St. Joseph's College at North Point, Darjiling was laid. In 1891 it was removed to a site, donated by the State Government, on the crest of the spur running north from Birch Hill. The buildings which house the school, the college, the libraries and the laboratories were constructed partly with the liberal grants-in-aid provided by the State Government.

St. Helen's Girls' High School & Convent, Kurseong

St. Helen's Girls' High School and Convent at Kurseong, sponsored by the Roman Catholic Daughters of the Cross of Leige, was opened in a small rented house in 1890 by Mother Marie. In 1891 it was removed to larger premises which was made unsafe by the earthquake of 1897. It, therefore, moved out in 1900 to a newly constructed building where it is housed at

¹ A. J. Dash—*op. cit.*, p. 275.

² This year given by L. S. S. O'Malley in *Bengal District Gazetteers : Darjeeling* (1907) may not be correct. The Annual Report of the Administration of Bengal Presidency during the year 1881-2, mentions of a St. Joseph's Seminary, apparently as a High School (p. 383).

present. The school stands on extensive grounds offering scope for outdoor sports.

Mount Hermon School at North Point, Darjiling was established in 1895 by the missionaries of the Methodist Episcopal Church of America to provide "Christian education to English speaking children." Standing amidst a 100-acre campus, the main school building known as the Queen's Hill is one of the finest of its kind in West Bengal. There are two hostels which provide accommodation to the residential students.

Mt. Hermon
School, Darjiling

In 1899-1900 the Education Department of the Government of Bengal decided to open classes at the Dow Hill Girls' School, Kurseong for the training of teachers under the guidance of an officer trained in the methods followed in England.¹ In 1901-02 training classes were opened for European, Anglo-Indian and Indian teachers.² But somehow they remained exclusive to European and Anglo-Indian lady teachers of elementary schools of primary classes.³ For the first time in 1928-29 the institution found a separate mention as a teachers' training college for coaching European and Anglo-Indian lady school teachers.⁴

Teachers' Training
College, Kurseong

An important institution "to provide for children wholly or partly of British or other European descent such an education and training based upon Protestant principles as may fit them for immigration to British Colonies or suitable work elsewhere,"⁵ was founded in 1900 by the late Rev. J. A. Graham. Originally known as St. Andrew's Colonial Homes and now as Dr. Graham's Homes, it occupies a 611-acre campus adjacent to Kalimpong Bazar and consists of 8 school buildings, 11 staff houses, 2 hostels, a hospital and a chapel. There are some workshops and laboratories as well for vocational training. The institution, since its inception, has been preparing students for the Cambridge Senior School Leaving Certificate and Junior School Leaving Certificate examinations as also the Matriculation and its equivalent examinations in Bengal. Pupils are also trained in the courses of the Board of Apprenticeship Training Examination. It is run by a Board of Management with the Superintendent of the Homes as its head.

Graham's Homes,
Kalimpong

The Goethals Memorial Orphanage (to which a school wing was later attached) was founded in 1907 by the Missionaries of the Roman Catholic Christian Brothers of Ireland Mission in memory of Rev. Paul Count Goethals, an Archbishop of Calcutta. Situated

Goethals Memorial
Orphanage &
School, Kurseong

¹ Annual Report of the Administration of the Bengal Presidency during the year 1899-1900. p. 51.

² *ibid*, 1901-2. p. 312.

³ *ibid*, 1915-6. p. 118 ; *ibid*, 1916-7. p. 117 & *ibid*, 1921-2. p. 281.

⁴ *ibid*, 1930-1, p. 169 and *ibid*, 1935-6. p. 162-3 also.

⁵ A. J. Dash—*op. cit.*, p. 278.

2 miles from Kurseong on grounds comprising 140 acres, "it was founded to impart a sound literary, moral and religious education to Catholic boys of the European and Anglo-Indian communities but Christian boys of other denominations as well as non-Christians were also admitted."¹ The courses of study were those laid down in the Code for European Schools and the pupils were prepared for the Cambridge Senior School Certificate examinations. In 1914-5 a special 3-year course in Mechanical and Electrical engineering was introduced when the institution received affiliation of the British Institute for Overseership.²

St. Joseph's
Convent,
Kalimpong

St. Joseph's Convent, sponsored by the missionaries of the Roman Catholic Sisters of St. Joseph's of Cluny, was founded at Kalimpong in 1922 as a sanatorium for the Sisters teaching in schools in the plains. In 1926 a boarding school for European and Anglo-Indian girls came to be attached to it with provision to admit boys up to the age of eight.

During the 19th and the early part of the 20th century, the efforts of the European and American missionaries were mainly directed towards providing secondary, higher secondary, vocational and finishing-school education to European and Anglo-Indian children alone. The then British Government not only supported these endeavours but also opened schools on their own for similar students. It is true that the foreign missionaries also set up elementary and junior secondary (Middle English) schools for Nepali, Bhutia, Lepcha, Bengali and Hindusthani boys and girls, but the energy spent on them was far less than that devoted to the former group. Growth of national consciousness from the third decade of the present century compelled an increasing number of these 'white' schools to admit Indian children. At first only Indian Christians were admitted in small numbers, but since the forties, the wards of rich Indians irrespective of their religion, were accorded ready admittance. Some of these schools went a step further by seeking affiliation of the University of Calcutta for preparing students for the Matriculation examination of that University. But this reorientation of outlook was neither general nor qualitatively significant. In fact, this new approach resulted in such a great rush among Indian students to take admission into these schools that in the Code of Regulations governing schools in the province, passed in the early thirties, it was laid that "the number of non-European in a European school should not exceed 15 per cent of the total number of pupils in the school." The Government could, however, relax this stipulation and they did relax it in regard to the St. Paul's School,

¹ A. J. Dash—*op. cit.*, p. 276.

² *Annual Report of the Administration of the Bengal Presidency during the year 1914-5*, Calcutta, p. 128.

Darjiling which was allowed to take in 25 per cent of Indian students.¹

After Independence, a question arose about the wisdom of running such expensive schools exclusively for the minority European and Anglo-Indian communities. It was seriously questioned whether the practice did not amount to a contravention of the directive principles of the Constitution providing equality of opportunity to all Indian citizens in every sphere of life. It was eventually decided that the Anglo-Indians and the children of European residents in India had a right to be educated in their mother tongue. At the same time, it was found necessary not to allow these institutions to teach 'white' students exclusively and to allow the admittance of Indian students in them without reservation. Till about the mid-fifties, however, these schools kept only 40 per cent of their seats earmarked for this purpose and better qualified Indian students were often refused admission.² Until 1961 these schools prepared a majority of their pupils for the Cambridge Junior School Certificate and the Cambridge Senior School Certificate examinations of the Cambridge Local Examination Syndicate while some of them, since the forties, also prepared some of their pupils for the Matriculation examination of the University of Calcutta, and from 1952 onwards, for the School Final examination, and still later, for the Higher Secondary examination of the West Bengal Board of Secondary Education. From 1961 a newly constituted body with headquarters at New Delhi took over the functions of the Cambridge Local Examination Syndicate, introduced a standardized curriculum for all English medium and Anglo-Indian schools and began conducting the Indian School Leaving Certificate examination, roughly corresponding in standard to the Higher Secondary examination. All the Anglo-Indian schools in Darjiling district now prepare their students for this examination. In addition, many of them teach up to the School Final or Higher Secondary standard of the West Bengal Board of Secondary Education although the medium of instruction continues to be English.

The earliest attempt to reach modern secular education to the Hill people was made around A.D. 1850 "by the Revd. W. Start, a private missionary, who added to his record of good work in Darjiling by opening a school for Lepchas. After him came a band of German missionaries, one of whom, Mr. Niebel, devoted himself especially to school work, prepared some Lepcha primers and gathered some boys together into schools.

Spread of education
through vernacular
media

¹ *Eighth Quinquennial Review on the Progress of Education in Bengal for the years 1927-28 to 1931-32*, Calcutta, 1933, p. 94.

² *Quinquennial Report on the Progress of Education in West Bengal for the period 1947-8 to 1951-2*; Calcutta, 1953, p. 108.

"But it was not till the advent of the Revd. William Macfarlane, in 1869, that any broad scheme of vernacular education was devised for the district.

"He created the nucleus of the Training School at Kalimpong. He soon found that the local language was so akin to Hindi that he could use many Hindi text-books as a means of instruction. He also found that the Lepchas and Bhotias, from their contact with Hindi and Nepali-speaking peoples, were soon able to converse in this language. So he fixed upon it as the *lingua franca*, and in it produced text-books.

"In a few years Mr. Macfarlane's system had so taken hold of the district that in 1873 there were 25 Primary schools with 615 boys and girls receiving instruction. The work, of which the foundations were thus laid broad and deep,"¹ has steadily grown under his successors, and the Church of Scotland Mission's subsequent work in this field became the most important factor in the spread of education among the local people.

The Annual Report of the Administration of the Bengal Presidency during the year 1871-2 pointed out : "The Government had done little or nothing for the instruction of the Lepchas and the Bhooteahs who are the natives of those hills. Yet there is a considerable indigenous population in and around Darjiling, and it seemed particularly desirable to train up a certain number of Lepcha and Bhooteah lads to have a knowledge of English, so that they might teach their own people and also to be to some extent useful as intermediaries between the British and the people of High Asia. It seemed best that any school for boys of these races should be in part a boarding school and an artisan school, so that the Lepcha or Bhooteah lads might learn English colloquial and might also acquire some useful trade. Accordingly, a sum of Rs. 1,800 a year was granted for the support of a Lepcha and Bhooteah Boarding and Artisan School, while the remainder of the Darjiling school grant (Rs. 500 a year) was given as a grant-in-aid to any Anglo-Vernacular school the Bengalee immigrants might set for their children. The Lepcha or Bhooteah Boarding School is to be under the special supervision of the Deputy Commissioner and the School Committee of Darjiling. In 1872-73 the newly opened Anglo-Hindi School at Darjiling was converted into a Government school and was renamed the Darjiling Zilla School."² In the following year the Government took over the management of the Lepcha and Bhutia Boarding School. In 1881-82 these two institutions were listed as Middle English schools.³

1 L. S. S. O'Malley—*Bengal District Gazetteers ; Darjeeling*, Calcutta, 1907. pp. 170-72.

2 *Annual Report of the Administration of the Bengal Presidency during the year 1872-3*, p. 479.

3 *Report on the Annual Administration of Bengal during the year 1881-2*, p. 377.

In 1865-66 the Lieutenant Governor of Bengal had sanctioned the establishment of 5 Model Anglo-Vernacular schools in the district each of which was to receive an aggregated allowance of Rs. 125 per month and another of Rs. 50 for the purchase of books and school apparatus.¹ The Darjiling Government High School, previously known as the Darjiling Anglo-Hindi School and then the Darjiling Zilla School, was established as a Government-managed Middle English School in pursuance of this policy.² In 1892 the Darjiling Zilla School and the Lepcha and Bhutia Boarding School were amalgamated and raised to the status of a High school with two departments, namely, the General Department for boys of all races and the Special Department for Bhutia, Lepcha and Tibetan boys.³ The Special Department was abolished in 1927 and was replaced by School Final classes which also proved unpopular and were in turn abolished in 1937.⁴ Since then the school prepared students for the Matriculation examination of the University of Calcutta until the formation of the Board of Secondary Education, West Bengal in 1951-52.

Enthused by the success of the boys' school, the Government opened in 1890 in Darjiling town a Primary school for the Nepali, Bhutia and Lepcha girls, called the Girls' Boarding School. Although meant for Nepali, Bhutia and Lepcha girls alike, it was found that the Nepalis were taking more interest in sending their girls to the school than the Bhutias or Lepchas. So, when in 1942 the school was raised to the status of a High school, it was renamed as the Nepali Girls' High School.⁵

St. Alphonsus' School, established as a Primary school in 1888 by the missionaries of the Roman Catholic Mission just outside the municipal limits of Kurseong, remained a Primary school for a long time. In 1936 it was upgraded as a High school.

The First Quinquennial Report on the Education in Bengal for the period 1886-87 to 1892-93, mentions of a girls' school at Darjiling, namely the Calcutta Girls' School, Darjiling Branch, which got its recognition as an unaided Middle English school in 1895-96,

¹ *Annual Report of the Administration of the Bengal Presidency during the year 1864-5*, p. 78.

² According to the *Bengal District Gazetteers : Darjeeling* by A. J. Dash, Calcutta, 1947 ; "The Government High School, Darjeeling had its origin in a Government Middle School which was established at Darjeeling about 1860." (p. 270).

³ According to A. J. Dash's *Darjeeling District Gazetteer* of 1947 (p. 270), the Tibetan Boarding School at Darjiling started functioning in 1874, but according to the Annual Report on the Administration of the Bengal Presidency for the year 1872-3, it was established in the year under review.

⁴ A. J. Dash—*op. cit.*, p. 270.

⁵ *ibid.*, p. 267.

but there is no information either about the date of its establishment or of its closure.¹

The Scottish Universities' Mission Institute at Kalimpong was opened in 1887 replacing a smaller school at Darjiling. At its inception it was meant to provide elementary vernacular education to the children of plantation labourers and poor people in other occupations.² It provided from the very beginning elementary and vocational education through the medium of Hindi and simple English. It was raised to the status of a High school in 1922 and prepared students for the Matriculation examination of the University of Calcutta till 1950-51 and the School Final Examination thereafter. Attached to it was a training school turning out trained teachers for primary schools which was opened some time in the last decade of the 19th century.³

In March 1905 the Church of Scotland Mission Girls' School was opened at Kalimpong by the Church of Scotland Mission for the instruction of women and girls of the neighbourhood irrespective of their religion. It owed its establishment to the endeavours of Mrs. Graham, the wife of Rev. J. A. Graham, who in 1900 founded the St. Andrews Colonial Homes at Kalimpong.⁴ Since its inception it provided both vocational training and elementary education. Initially, lace work was the only vocation in which training was imparted in the school and it was then known as the Kalimpong Lace School. From 1907 classes for instructions in wool-dyeing, wool-weaving, tailoring, embroidery, carpet-making, leathercraft, fabric-printing were introduced one by one.⁵ The General Department of the school was separated from the parent body in 1924 and was converted into the Kalimpong Girls' High School which began preparing students for the school leaving examination of the University of Calcutta. It was perhaps one of the earliest institutions in the district to introduce Nepali as the medium of instruction up to the Middle English examination; for students preparing for the Matriculation or its equivalent examinations, English was, however, the recognized medium. The students have mainly been

¹ *Review of Education in Bengal 1892-3 to 1896-7*: Being the First Quinquennial Report of the Department of Education, Government of Bengal. Calcutta, 1897. p. 143. It might have been the same school, established by Bishop Millman in 1895, which later came to be known as St. John's Diocesan Girls' School (discussed earlier in this Chapter).

² *Annual Report of the Administration of the Bengal Presidency during the year 1885-6*, p. 124.

³ *Progress of Education in Bengal 1912-3 to 1916-7*: Fifth Quinquennial Review of Education. Calcutta, 1918, p. 70.

⁴ Mrs. Graham had been running a small teaching-cum-vocational training establishment for hill girls since 1897. vide A. J. Dash—*op. cit.*, p. 154.

⁵ *Progress of Education in Bengali 1902-03 to 1906-07*: *The First Quinquennial Review of Education*; Calcutta, 1907; Op. 125.

girls from Nepali, Bhutia and Lepcha families. In 1924, the Vocational Training Section registered itself under the Companies Act as the Kalimpong Mission Industries Association and became a full-fledged production-cum-training centre with a capital of Rs. 75,000.¹

The earliest school to be opened in the rural areas of the district was that at Sukhiapokhri which was established in 1900 as a Primary school by the missionaries of the Church of Scotland Mission and was subsequently raised to the status of a Middle English school. In 1953 the school received affiliation of the Board of Secondary Education and was renamed the Sukhiapokhri High School.

The Turnbull School at Darjiling and the Ghum Boys' School were opened in 1906 and 1910 and became High schools in 1952 and 1956 respectively.

The Maharani Girls' School, Darjiling is the first Indian managed and privately run school for Indian girls in the district catering to modern education through the Bengali medium. Established in 1908 by some Bengali ladies connected with the Brahma Samaj, it was raised to the status of a High school in 1911.

The first school to be opened in the plains portion of the district was the Siliguri Boys' High School—a privately run Indian institution—which was established in 1918 and became a High school in 1920. The Indian managed and privately run Jyotsnamayee Girls' School at Siliguri, established in 1929 and raised to the status of a High School in 1957, happens to be the earliest school for girls in the plains portion of the district. The first school to be set up in the rural areas of the Siliguri subdivision was the Phansidewa School which was founded in 1940 and raised to the status of a High school in 1946.

On the eve of independence in 1946-47, there were only 322 Primary schools, 23 Middle English schools, 10 European or Anglo-Indian High schools, 11 Indian High schools, 3 Intermediate colleges and 1 Degree college, 3 crafts schools and 3 Teachers'

A. Mitra—*Census of India 1951 : West Bengal District Handbooks ; Darjeeling* ; Calcutta, 1964 ; p. xc.

Training schools in existence in the district.¹ In the same year, 24 per cent of boys and 8 per cent of girls of the school-going age (5 to 14 years) were actually attending educational institutions. In 1950-51 (i.e. in the first year of the First Five-Year Plan), there were 333 Primary schools,² 30 Middle English schools,³ 10 European or Anglo-Indian High schools, 16 Indian High schools,⁴ 3 Intermediate and 2 Degree colleges, 4 technical schools and 3 training schools in the district and 33 per cent of the boys and 14 per cent of the girls of the 5-14 age group were in schools.

In 1955 the Government of West Bengal appointed the Darjiling Enquiry Committee to go into the details of economic, social, cultural and political needs of the people of the district. Its recommendation in the sphere of education was as follows: "There are 356 primary schools in the district and the approximate number of students attending these schools is 32,413. There are 55 schools in the tea gardens under the Darjiling Branch of the Indian Tea Association. Out of them 48 are aided by Government and the rest are run by the Darjiling Branch of the Indian Tea Association. Primary education has to be expanded in the district and the number of schools is to be increased. In view of the topography of the area, the increase is particularly necessary. Primary education is very much in the attention of the hill people and therefore any increase in the number of schools will not result in the reduction in the number of pupils attending each school. The main difficulty in the establishment of more primary schools is stated to be the dearth of teachers with the standard of qualifications required under the Primary Education Act. We suggest that untrained teachers who are otherwise suitable may be employed till they get themselves trained or are replaced by trained teachers.

सत्यमेव जयते

1 *Quinquennial Review on the Progress of Education in West Bengal for Period 1942-43 to 1946-47*, pp. 15-16 and A. Mitra, *Census 1951, West Bengal District Handbooks : Darjeeling*, Calcutta, 1954, p. 140. All figures given in these two books do not exactly tally. We have, therefore, checked up the figures with those available from other sources and accepted the most probable ones; e.g. according to the Quinquennial Review the number of Primary schools was 322, whereas according to the Census Handbook the number was 319. Again, according to the Quinquennial Review the number of Middle schools was 19, whereas according to the Census Handbook the number was 23. The Census Handbook mentions of the existence of 3 colleges only, whereas our information gathered from the Quinquennial Reviews, District Administration Reports and from the reports furnished by the colleges indicates that there were 4 colleges in the district in 1946-47.

But according to the *Quinquennial Review on the Progress of Education in West Bengal for the Year 1947-48 to 1951-52*, Calcutta, 1959, p. 23, there were 344 Primary schools.

According to the *Quinquennial Review 1947-52*, the number of M.E. schools was 32 (D. 54).

4 According to the *Quinquennial Review of Education 1947-52*, the number was 19.

"There are 27 high schools and 33 junior high schools in the district and the approximate number of students enrolled in these schools is 10,544. For the reasons stated in the preceding paragraph the number of secondary schools should also be increased. A Government or a Government-aided high school may be set up at Kurseong.

"As regards higher education the need for a Degree College at Kurseong was stressed but in our view it would meet the present needs of this subdivision if arrangements for cheap transport between Kurseong and Darjiling are made for students to attend their Degree Classes at the Government College at Darjiling or a cheap hostel is provided for them at Darjiling.

"As for Kalimpong the Education Department should investigate the financial position of the Scottish Union Missionary College which prepares students for the Intermediate Examination at present and should make adequate grants to put it on a sound footing and to upgrade it for teaching the Degree Course.

"Hill boys have a keenness for technical education. The existing Industrial Training School at Tung can hardly cater to this need adequately. The school should be upgraded and expanded so that facilities for training as draftsman, overseer and other such courses are available for the hill boys at this institution. At present two seats have been reserved in both the Medical College and the Nil Ratan Sircar Medical College, Calcutta, for students from the Darjiling district. We recommend that apart from this districtwise allocation two more seats in each of the above institutions may be reserved for the hill boys from Darjiling and such boys passing the I. Sc. Examination at least in the second division be admitted in those institutions in relaxation of the present standard for admission. We also recommend that similar facilities may be extended to the hill boys in Technical Government Institutions like the Agricultural College, Veterinary College, Engineering College."¹

It has been mentioned earlier that Khas-kura Nepali is the mother tongue of the largest number of hill people of the district. The Newars, Mangars, Limbus, Khambus and Yakhas originally hailing from Nepal are, without exception, bilinguals and they usually use Khas-kura Nepali for communion outside their immediate kin-groups. Bhutias and Lepchas who have their own mother tongues are generally found to be bilinguals and they freely use Khas-kura Nepali in their linguistic communication with people not belonging to their own ethnic groups. Persons responsible for the propagation of education amongst the local populace never had any illusion about the fact that at least Primary education should be imparted through the medium

Medium of
instruction

¹ Government of West Bengal--*Report of the Darjiling Enquiry Committee (November 1955 to August 1957)*; Calcutta, 1961; p. 1.

of one's mother tongue or the language next to it in popularity. If Khas-kura Nepali could be adopted, it would have been the best possible choice under the circumstances. But because of dearth of pedagogical materials in that language, Macfarlane, the pioneer in introducing modern education in the Darjiling hill areas, had no other option but to choose Hindi which had close linguistic affinities with Khas-kura Nepali. But Mrs. Graham of the Scottish Mission Girls' School introduced Khas-kura Nepali as the medium of instruction to the pupils in her Primary school. Between 1917 and 1921 most of the Indian Primary schools in the hill areas of the district, except the few managed by private individuals from the plains and meant mainly for Bengali or Hindi-speaking students, adopted Khas-kura Nepali as the medium of instruction. By about 1925-26, the Middle English schools in the hill portions of the district meant mainly for Nepalese, Bhutia and Lepcha students, began instructing their pupils through the medium of Nepali. But English, Bengali and Hindi remained the accepted media of instruction and were recognized until recently as the 'first languages' for students preparing for the school leaving examination.

Among the hill people of the district, and especially among those of Nepalese extraction, there was a persistent demand to declare Nepali as a language for official use and for its adoption as a medium of instruction at all levels of education. This demand came to be more widely pressed after independence and the Darjiling Enquiry Committee dealt with it in the following words: "As the overwhelming majority of the people in the hill areas speak Nepali, the district should be recognized as a bilingual one and both Nepali and Bengali should be recognized as the district's regional languages."¹ In acceptance of this recommendation, the West Bengal Official Language Act of 1961² and its subsequent amendments of 1963 and 1964 declared both Bengali and Nepali as the languages recognized for official use in the three hill subdivisions of the district and the relevant portion of the Act came into operation from 26 January 1965.³ The Board of Secondary Education, West Bengal had, however, accepted Nepali along with Bengali as a medium of instruction and as one of the 'first languages' in the Indian High and Higher Secondary schools in the district, some time during the 1961-62 session.⁴

LITERACY

According to the 1961 census, 287 persons per thousand or 28.7 per cent of the total population of Darjiling district are literate, that is, they can at least read and write a simple letter in their mother tongue or in any other language. Thus the extent of literacy in Darjiling district is a little less than the West Bengal

¹ *Ibid.* p. 4.

² *West Bengal Act XXIV* of 1961, clause 2 (a).

³ Home (Publicity) Department, Government of West Bengal—Notification No. 137 Pub. dated, Calcutta, 8 January 1965.

⁴ Source : Secretary, Board of Secondary Education, West Bengal.

average of 29.3 per cent according to the same census count. Considering the hills and plains portions of the district separately, we find that 29.5 per cent of the people of the hills are literate as against 27.4 per cent in the plains. Another notable fact is that the rate of literacy is more or less even in the three hill subdivisions. The percentage for the district as a whole rose to 32.90 in the 1971 census.

The extent of literacy in the urban and rural areas of the district show a wide divergence. In 1961, the rural areas of the district recorded a higher percentage of literacy than the corresponding areas of the State as a whole. As against the West Bengal average literacy rate of 21.6 per cent for its total rural population, 21.8 per cent of similar population of Darjiling district was found literate. The extent of literacy among the rural people of the hill portions of the district was even higher, being 24.6 per cent while the corresponding figure for the plains portion was only 16.5 per cent.

The extent of literacy in the urban areas of the district in 1961 was a little less than the corresponding State average—the percentage figures being 52.9 and 51.7 respectively. Curiously, while Darjiling, Kurseong and Siliguri towns returned a higher percentage of literacy than the average for the urban areas of the State as a whole, the extent of literacy in Kalimpong town was much below the latter.

In a sexwise break-up, 40.2 per cent of males and 15.5 per cent of females of the district were found literate in 1961 as against the West Bengal averages of 40.1 and 17.0 per cent respectively. In the hill areas, the male and female literacy rates were 50.4 and 14.8 per cent respectively while in the plains the corresponding figures were 35.3 and 17.3 per cent. The percentage rose to 42.05 for males and 22.54 for females in the 1971 census. The following table prepared from 1961 census data gives a sex and tractwise break-up of percentage distribution of literates in Darjiling district.

SEX, SUBDIVISION AND URBAN:RURAL TRACTWISE
PERCENTAGE DISTRIBUTION OF LITERACY IN
DARJILING DISTRICT IN 1961

State/District/ Subdivision/ Police Station		Percentage of Literates		
		Persons	Males	Females
West Bengal	Total	29.3	40.1	17.0
	Rural	21.6	32.9	9.7
	Urban	52.9	59.6	43.3
Darjiling District	Total	28.7	40.2	15.5
	Rural	21.8	33.8	8.5
	Urban	51.7	59.2	41.5
Sadar Subdivision	Total	30.0	44.6	14.5
	Rural	24.0	39.1	8.6
	Urban	52.1	64.4	41.0
Kalimpong Subdivision	Total	26.8	61.2	13.0
	Rural	22.6	34.9	8.6
	Urban	43.0	52.9	30.7
Kurseong Subdivision	Total	31.7	45.3	17.0
	Rural	27.3	58.3	12.2
	Urban	53.3	62.9	42.2
Siliguri Subdivision	Total	27.4	35.3	15.3
	Rural	16.5	24.7	6.6
	Urban	53.3	57.8	46.3

Although the 1961 census figures do not provide an encouraging picture of the extent of literacy in the district vis-a-vis the position obtaining in West Bengal, the progress made during the 60-year period from 1901 to 1961 reveals an upward trend, especially in the decennial period 1951-61, which roughly covers the First and the Second Five-Year Plans.

SEXWISE PERCENTAGE OF LITERATES TO TOTAL POPULATION
IN DARJILING DISTRICT : 1901-61

	1901	1931	1951	1961	1971
Percentage of literate persons to total population	6.56	10.34	18.63	28.70	32.90
Percentage of literate males to males population	11.13	17.50	27.87	40.20	42.05
Percentage of literate females to total females population	1.33	2.21	7.92	15.46	22.54

If we leave aside these figures of literacy given as percentages of total population and sexwise total population for a while and concentrate on the figures of literacy and percentage variation of literacy given for similar years, the picture of the growth of literacy will be more revealing as in the table in the Appendix.

It will be seen from the preceding table that while general literacy grew by 66 per cent per decade between 1901 and 1931, it grew by 174 per cent per decade between 1931 and 1961. But since the growth between 1951 and 1961 was 191 per cent, it could not have been more than 166 per cent per decade, on an average, between 1931 and 1951. Similarly, in the field of female literacy, the growth was most pronounced after the independence of the country, being 69 per cent per decade between 1901 and 1931 and 433 per cent per decade between 1931 and 1961. This trend of growth will be more apparent from an examination of the agewise break-up of literacy figures for the years 1901, 1931 and 1961. It will be seen from the following table that with the passage of time more and more persons in the lower age-groups are becoming literate.

AGEWISE BREAK-UP OF LITERATES IN DARJILING
DISTRICT IN 1901, 1931 & 1961

Year	Age-group	Total population	Total literates	Percentage of literates to total population
1901	All ages	2,49,117	17,442	7.00
	0-10	65,694	532	0.81
	10-15	27,782	1,349	4.86
	15-20	23,772	2,537	10.67
	20 and above	1,31,869	13,024	9.88
1931	All ages	3,19,635	34,344	10.74
	0-10	87,629	1,744	1.99
	10-15	36,402	2,740	7.53
	15-20	31,683	4,137	13.06
	20 and above	1,63,921	25,723	15.69
1961	All ages	6,24,640	1,13,681	18.19
	0-10	1,86,201	14,219	2.16
	10-15	73,820	19,017	25.76
	15-20	56,238	12,315	21.89
	20 and above	3,08,381	68,130	22.09

The preceding table also indicates that more and more persons in the upper age-groups are retaining their literacy attainments which is a significant fact. Considering that if early education is

not followed up, the literates tend to revert to a state of illiteracy, we may assume that, of late, more and more persons are going through the institutional processes of education after attaining bare literacy.

Before proceeding to a discussion on the trends of educational growth, it would be better to take stock of the advancement of literacy among a few selected ethnic groups during the last sixty years. The following table would indicate the direction and rate of growth of literacy among a number of ethnic groups in the district.

Ethnic Groups	Population			Literates			Percentage of Literates to Population		
	1901	1931	1961	1901	1931	1961	1901	1931	1961
Bhutia (including Sherpa, Toto, Dukpa, Kagatey, Yolmo & Tibetan Buddhist)	16,932	—	22,086	710	—	5,823	4.13	—	26.37
Gurung (Nepali Hindu)	13,158	—	—	691	—	—	5.25	—	—
Khambu (Nepali Hindu/Buddhist)	42,557	33,909	—	1,816	5,837	—	4.27	17.21	—
Khas (Nepali Hindu)	11,597	—	—	194	—	—	1.67	—	..
Limbu (Nepali Hindu)	20,154	—	—	599	—	—	2.97	—	—
Murmi (Nepali Hindu/Buddhist)	30,405	—	—	1,041	—	—	3.42	—	—
Newar (Nepali Hindu/Buddhist)	7,544	—	—	615	—	—	8.15	—	—
Sunuwar (Nepali Hindu)	5,124	—	—	339	—	—	6.62	—	—
Lepcha (Buddhist/Christian)	19,094	12,721	14,910	705	2,033	3,724	3.68	15.98	24.98
Sarki (Nepali Hindu)	—	—	3,296	—	—	580	—	—	17.60
Kami (Nepali Hindu)	—	—	19,851	—	—	3,990	—	—	20.10
Damai (Nepali Hindu)	—	—	9,366	—	—	2,232	—	—	23.84
Rajbansi (Hindu)	—	—	31,472	—	—	7,762	—	—	9.39
Oraon (Tribe)	—	—	28,388	—	—	2,664	—	—	9.39
Santal (Tribe)	—	—	7,302	—	—	359	—	—	4.92

It is evident from the foregoing table that Nepali Hindus of the higher castes, namely, Brahmins, Newars, Mangars and Gurung show a higher literacy rate than other ethnic groups of hill people. Both Brahmins and Newars have a long tradition of learning. Hinduized former tribes like the Mangars and the Gurungs took to education on assuming leadership roles in Nepal after the Gorkha war. Kiranti tribes, which entered the Nepali Hindu society later, were previously living in a pre-literate state and are yet to catch up with caste Hindus or Gorkhaized castes. Thus Limbus, Murmis and Khambus compare unfavourably with the Newars, Mangars and Gurungs in point of literacy. But they are definitely better placed than the Nepali Hindu untouchable castes like the Sarkis, Kamis and Damais. Among the Bhutias literacy is higher among the Tibetans and among the Dukpas or Bhutanese Bhutias and a little lower among the Sherpas or the Nepalese Bhutias. Among the Hindu Scheduled Castes of the plains the Rajbansis show a literacy rate higher than the Sarkis, Kamis and Damais but not higher than those of the Bhutias and Lepchas. Literacy is very poor among two of the Scheduled Tribes of the plains, namely, the Oraons and the Santals. Religion also seems to influence the extent of literacy. Twice as many Christian Lepchas are literates than Buddhist Lepchas. Literacy among the Christian Lepchas are, again, higher than that among many of the Nepali Hindu Higher caste groups. The same is more or less true about the Christian Bhutias, Christian Mangars and Gurungs. But the extent of literacy among the Christian Oraons is not so high

Till 1951, any person who could write his or her name in any script, was regarded as literate. Thereafter, a literate person has been defined as one who can read and write a simple letter in the mother tongue or in any other language for which it was not necessary to have any institutionalized learning which was, however, needed to qualify as an educated person. Since 1951, a person is regarded as having some education if he has completed the stipulated period of Primary schooling. But the category of the educated not only included such persons but also those having the highest level of education. The following table gives an indication of the progress of education in the district during the 1901-61 period. It also shows the number of educated persons in

Levels of education

certain significant age-groups and gives percentage figures of the educated in various age-groups to the respective total population and literate population.

Year	Age-group	Total of persons at all levels of education	Percentage of educated persons to total population	Percentage of educated persons to total literate population
1901	All ages	2,467	0.99	14.14
	0-10 years	264	0.40	49.62
	10-15 ..	358	1.29	26.53
	15-20 ..	282	1.19	11.11
	20 years & above	1,563	1.19	12.00
1931	All ages	6,610	2.07	19.24
	0-10 years	388	0.44	22.24
	10-15 ..	669	1.84	24.41
	15-20 ..	945	2.98	22.84
	20 years & above	4,608	2.81	17.91
1961	All ages	65,611	10.50	57.71
	0-10 years	4,037	2.16	28.32
	10-15 ..	12,549	16.99	65.98
	15-20 ..	11,445	20.35	92.93
	20 years & above	37,580	12.18	55.15

For a better understanding of the spread of education among the general populace, a closer classification of the educated would appear necessary. The following table prepared from 1961 census data gives the percentages of educated persons of various attainments in the rural and the urban areas of the district to corresponding, sexwise, total populations, the categories being exclusive.

**PERCENTAGE OF MALES & FEMALES OF DIFFERENT
EDUCATIONAL ATTAINMENTS IN RURAL & URBAN AREAS
OF DARJILING DISTRICT : 1961**

Educational Categories	Percentage of sexwise population			
	Rural		Urban	
	Male	Female	Male	Female
Literate without educational level	25.35	5.87	25.80	24.46
Up to Primary or Junior Basic level	7.01	2.45	23.77	12.99
Matriculation or School Final or Higher Secondary or equivalent (Matriculation or above in case of rural and up to Matriculation or equivalent in case of urban areas)	1.46	0.18	6.26	2.49
Technical diplomas below degree level (Urban only)	—	—	0.25	0.08
Non-technical diplomas below degree level (Urban only)	—	—	1.49	0.75
University graduation and/or post-graduate degrees other than technical degrees (Urban only)	—	—	1.31	0.56
Technical degrees or diplomas equal to University graduation or post-graduate degrees (Urban only)	—	—	0.32	0.12

The progress of education in the district at various levels between 1951 and 1961 (when Government's performance in this behalf was much better than before), will be clearly evident from the following table, for the preparation of which the data furnished by the 1951 and 1961 censuses have been suitably recast.

**PERCENTAGE OF MALES & FEMALES OF DIFFERENT
EDUCATIONAL ATTAINMENTS IN DARJILING DISTRICT
IN 1951 & 1961**

Levels of Education	Percentage of sexwise population			
	1951		1961	
	Male	Female	Male	Female
Literate without educational level	25.35	8.64	25.57	15.16
Matriculation or School Final or Higher Secondary or equivalent level	1.78	0.36	3.87	1.34
University graduation and/or post-graduate degrees other than technical degrees or diplomas	0.31	0.05	1.31	0.56
Non-technical degrees or diplomas	0.15	0.04	1.49	0.75
Technical degrees or diplomas.	0.13	0.0002	0.57	0.20

The two tables below prepared from 1961 Census data give absolute figures of persons with different levels of education among the members of certain quantitatively important Scheduled Castes and Scheduled Tribes in the district.

PERSONS IN DIFFERENT EDUCATIONAL LEVELS AMONG CERTAIN SCHEDULED CASTES OF DARJILING DISTRICT : 1961

Name of Scheduled Caste	Level of Educational Attainment							
	Total Number		Literate without education		Primary or Junior Basic		Matriculation/ School Final/ Higher Secondary or above	
	Male	Female	Male	Female	Male	Female	Male	Female
Total Number	43,241	39,140	10,952	2,830	3,061	1,110	304	63
Damai (Nepali)	4,308	5,058	1,049	495	354	289	29	16
Kami (Nepali)	10,013	9,418	2,222	682	621	327	121	17
Rajbansi	17,418	14,054	5,500	537	1,376	246	100	3
Sarki (Nepali)	1,715	1,581	622	202	93	39	6	5
Namasudra	1,308	1,309	256	139	189	57	8	4

PERSONS IN DIFFERENT EDUCATIONAL LEVELS AMONG CERTAIN SCHEDULED TRIBES OF DARJILING DISTRICT : 1961

Name of Scheduled Tribe	Levels of Educational Attainment							
	Total Number		Literate without education		Primary or Junior Basic		Matriculation/ School Final/ Higher Secondary or above	
	Male	Female	Male	Female	Male	Female	Male	Female
Total Number	50,685	45,759	8,775	1,939	2,583	856	503	124
Bhutia (including Sherpa, Dukpa, Kagatey, Yolmo and Tibetan)	11,323	10,763	3,196	837	1,080	441	196	73
Lepcha	7,385	7,525	2,092	658	518	235	185	36
Munda	4,677	3,887	473	34	105	13	12	..
Oraon	14,975	13,413	1,585	273	609	102	87	6
Santal	3,932	3,370	245	21	76	12	4	1

Schools, mostly for primary education, began to be established in the district around 1870. In 1873, when there were only 2 High schools exclusively for European and Anglo-Indian students and only one Middle school, there were as many as 25 Primary schools with 650 boys and girls on their rolls. The following table, prepared from data provided by the Quinquennial Reports on the Progress of Education, the two previous District Gazetteers, the District Census Handbooks of 1951 and 1961 and various reports of the State Directorate of Education, would indicate the progress of primary education in the district.

Primary Education

Growth of
Primary Education

Year	Number of Primary schools	Boys at school	Girls at school	Percentage of boys of school-going age	Percentage of girls of school-going age	Public expenditure (at current prices) Rs.
1873	25	650 (boys & girls)		—	—	—
1896	95	2,731	466	38.1	5.9	10,305
1901	—	3,055	552	15.3	3.1	11,250
1907	70	2,420	300	—	—	—
1915-16	208	4,153	811	—	—	26,265
1920-21	227	4,632	773	—	—	20,629
1925-26	245	3,701	545	—	—	26,831
1930-31	278	6,145	1,005	—	—	32,081
1935-36	328	7,909	1,722	—	—	60,190
1940-41	332	9,109	2,340	—	—	69,855
1945-46	363	12,591 (boys & girls)		—	—	—
1950-51	333	20,179 (boys & girls)		32.31 (persons of school-going age)		—
1955-56	366	32,413 (boys & girls)		—	—	3,04,892
1960-61	404 (Primary)	26,269	14,927	36.0	21.2	5,29,480
	63 (Junior Basic)	4,360	2,357			1,18,927
1965-66	542 (Primary)	37,779	23,679	—	—	11,18,632
	77 (Junior Basic)	5,938	3,463	—	—	3,73,676

The preceding table does not include the Primary and Junior Basic sections of Higher Secondary, High, Middle English and Senior Basic schools unless those sections had a separate status. In fact, the decrease in the number of Primary schools between 1896 and 1907 and 1945-46 and 1950-51 as also the fall in the number of pupils between 1901 and 1907 and 1920-21 and 1925-26 do not indicate any real retrogression in the growth of Primary education as the apparent decreases are attributable to the fact that a fair number of former Primary schools had meanwhile been converted into Secondary schools and at a rate faster than that of the emergence of new Primary schools. The table also does not include the special type of Primary schools or the Primary sections of Secondary schools managed by tea gardens for the wards of plantation workers. It was reported in 1914-15 that such schools in Darjiling district were giving a very good account of themselves.¹ In 1921-22, these schools existed in fair number in Jalpaiguri and Darjiling and were "maintained on a grant-in-aid system, the planters meeting the initial charges."² The following table prepared from data provided by the relevant volumes of the Annual Report of the Administration of Bengal Presidency gives a short-term picture of these schools functioning in Darjiling and Jalpaiguri districts taken together. (Separate figures for each of these districts are not available).

District	Year	No. of schools	No. of pupils	Government expenditure (at current prices)	
				Rs.	Rs.
Jalpaiguri and Darjiling	1931-32	171	3,496	—	—
	1932-33	169	3,225	23,689	10,828
	1933-34	171	3,479	25,706	11,476
	1934-35	153	3,658	24,072	10,747
	1935-36	165	3,930	25,358	11,437
	1946-47	212	—	—	66,782

In 1957 the Darjiling Enquiry Committee appointed by the Government of West Bengal reported about the existence of "55 schools in the tea gardens under the Darjiling Branch of the Indian Tea Association. Out of them 48 are aided by Government and the rest are run by the Darjiling Branch of the Indian Tea Association."³

¹ *Annual Report of the Administration of Bengal Presidency during the year 1914-15*, p. 125.

² *ibid.* for the year 1921-22, p. 280.

³ Government of West Bengal—*Report of the Darjeeling Enquiry Committee* (November 1955 to August 1957). Calcutta, 1961. p.1.

Another type of Primary schools, known as Cantonment Schools, are managed by cantonment authorities. In 1933-34, there were two such schools, one at Lebong and the other at Jalapahar with 108 boys and girls on their rolls.¹ In 1935-36 their number increased to 3, 2 at Lebong and one at Jalapahar, with 160 pupils attending them.² In 1955-56 there were 5 such schools.

Cantonment
Schools

In 1906-07 no Primary school, except the Primary sections of the Victoria Boys' (Secondary) school and the Dow Hill Girls' (Secondary) School, was directly managed by Government though a majority of them were enjoying grants-in-aid from the State as also from local self-governing bodies. A large number of Primary schools in the district were then being managed by Christian missions.³ In 1946-47, of the 322 Primary (Indian) schools in the district, 6 were managed by different municipalities, 305 were Government-aided but privately managed while 11 were unaided, privately-managed institutions. At least one-third of these privately-managed schools were run by Christian missions.⁴ In 1951-52, there were 10 Primary schools under Government management, 5 under municipalities, 317 under private management and receiving Government aid and 12 non-aided private institutions.⁵

In 1949-50, the State Government decided to introduce Basic Education or *Buniadi Siksha* of Gandhiji's conception, with some necessary modifications, as an alternative to the customary system of primary education. In the scheme so adopted, the Junior Basic schools perform functions analogous to those of the old-type Primary schools with an added emphasis on practical training. The first Junior Basic school was set up in the district in 1952-53.

Junior Basic
Schools

In 1954 the Darjiling District School Board was set up in pursuance of the Bengal (Rural) Primary Education Act of 1930 to implement the scheme of free and compulsory primary education in the rural areas of the district and to expand Junior Basic education. At the time of the inception of the Board, there were less than 200 Primary schools in the rural areas of the district with not more than 350 teachers in them. By the end of the First Five Year Plan, i.e. in April 1957, there were 241 rural Primary schools and 19 Junior Basic schools manned by about 600 teachers. At the end of the Second Five Year Plan, i.e. in April 1962, there were 311 rural Primary schools and 58 Junior Basic schools

District School
Board & Primary
Education in rural
areas

Annual Report of the Administration of Bengal Presidency during the year 1933-34. p. 182.

ibid. for 1934-35.

Progress of Education in Bengal, 1902-03 to 1906-07 ; Third Quinquennial Review. Calcutta 1907. p. 134.

Quinquennial Review on the Progress of Education in West Bengal for the period 1942-43 to 1946-47 Calcutta, 1951. p. 15.

ibid. for 1947-48 to 1951-52. Calcutta, 1959 p. 23.

employing about 900 teachers while in April 1966 there were, under the Board, 436 Primary schools and 67 Junior Basic schools in the rural areas of the district with a total teacher-strength of about 1,500. In 1966, 85% of boys and girls in the rural areas of the 5-14 age-group were attending these schools.¹ The following table gives the thana-wise distribution of Primary and Junior Basic schools in the rural areas of the district under different management as obtaining on 31 December 1966.²

Name of police station	No. of Primary schools managed by the Board	No. of privately managed Government aided Primary schools	No. of privately managed Government-aided Junior Basic schools	No. of privately managed unaided Junior Basic schools
Phansidewa	53	1	10	—
Kharibari	39	1	2	—
Siliguri	32	22	6	1
Naksalbari	25	5	2	—
Kurseong	29	16	7	1
Jore-Bungalow	24	—	3	—
Mirik	13	1	2	...
Sukhiapokhri	18	1	2	—
Rangli-Rangliot	39	1	7	—
Pulbazar	49	—	6	—
Darjiling	22	39	3	1
Kalimpong	69	13	25	1
Gorubathan	25	1	2	—
Total for rural areas of the district	437	101	77	4

¹ Source : Secretary, District School Board, Darjiling.

² Source : District Inspector of Schools, Darjiling.

The responsibility for the spread of Primary education in the urban areas lies, at least theoretically, with the municipal authorities. The following table gives a list of Primary and Junior Basic schools under different management in the urban areas of the district as on 31 December 1966.

Primary Schools in urban areas

Name of municipal town	No. of Municipal Primary schools	No. of privately run Govt. aided Primary schools	No. of Govt. sponsored Free Primary schools	No. of privately run un-aided Primary schools	No. of privately run Govt. aided Junior Basic schools
Darjiling	5	37	—	1	1
Kurseong	2	10	—	1	3
Kalimpong	—	13	—	—	5
Siliguri	2	19	14	1	1
Total for the urban areas of the district	9	79	14	3	10

Compulsory free primary education was introduced in the rural areas of the district in 1961-62 and in the first and second phases it came into operation in the rural areas of Siliguri, Phansidewa, Kurseong, Kalimpong, Pulbazar and Sukhiapokhri police stations. In March 1968, the Darjiling Municipality introduced compulsory free primary education within its jurisdiction. At the inception 8,000 students in Primary classes were benefited by the scheme for the running of which the municipality had to levy an education tax of 2% on the rate payers intended to fetch an annual sum of Rs. 50,000.²

Pre-Basic or Nursery schools form an integral part of the scheme of basic education adopted by the State Government for the education of pupils between 3 and 6 years of age. On 31 December 1966, there were five Pre-Basic schools in the district; one at Darjiling, two at Kurseong, one at Kalimpong and one at Siliguri.³ The Pre-Basic school at Darjiling is run by the Ramakrishna Vedanta Math. Besides these, there are nursery and/or Kindergarten sections attached to a majority of the European or Anglo-Indian schools in the district.

Pre-Basic Schools

¹ Source : *ibid.*, *loc. cit.*

² *The Statesman*, Calcutta. 27 September 1967.

³ Source: *ibid.*, *loc. cit.*

Secondary
EducationJunior Secondary
Education

Some of the early European and Anglo-Indian schools managed by Christian missions and then known as Middle schools were first to impart secondary education in the district. It is not known when the Loreto Convent for Girls, founded in 1846, became a Secondary school but the St. Paul's School, established in Darjiling in 1868, and St. Joseph's Seminary, also at Darjiling, became Secondary schools before 1880-81. By 1881-82 the Lepcha and Bhutia Boarding and Artizan School, Darjiling; the Darjiling Zilla School (formerly Anglo-Hindi School), Darjiling and the Dow Hill School for Europeans, Kurseong—all managed by Government—had become Middle English schools. By 1897 other Secondary schools imparting lessons up to Cambridge Junior School Certificate examination or Cambridge Senior School Certificate examination were established in the district. Among these mention may be made of the Darjiling Girls' School established in 1895 which later came to be known as St. John's Diocesan Girls' School; St. Helen Girls' School, Kalimpong established in 1890; Mount Hermon School, Darjiling founded in 1895 and Dow Hill Girls' School, Kurseong which was separated from the Victoria Boys' School, Dow Hill in 1897. Of these, the Darjiling Girls' School (St. John's Diocesan Girls' School) and Dow Hill Girls' School remained Junior High or Middle schools for a long time and, with the exception of Darjiling Zilla School and Lepcha and Bhutia Boarding School—which got amalgamated to form a High school in 1892—the others admitted only European and Anglo-Indian students.

In 1943-44 there were 12 Middle English schools for boys in the district, located at Darjiling (two; one exclusively for Hindi-speaking pupils), Sukhiapokhri (Scots Mission), Mirik (Scots Mission), Pedong (Roman Catholic Mission), Ghoom, Kurseong, Phansidewa, Kharibari, Naksalbari and Kalimpong (two) besides 4 Middle English schools for girls, at Darjiling (two; one exclusively for hill girls), Kalimpong and Kurseong. In April 1944, 1,629 pupils were attending these schools for boys while 570 were in those for girls. Of them 1,215 boys and 317 girls were of Nepalese, Bhutia, Tibetan and Lepcha origin. The total expenditure on the boys' schools came to Rs. 41,282 in 1943-44 of which Rs. 17,018 was contributed by Government while the girls' schools incurred an expenditure of Rs. 17,925 of which Rs. 8,934 came from the public exchequer.¹ In 1946-47, there were 19 Middle English (Indian) schools in the district with a total of 3,622 students besides the European and Anglo-Indian schools imparting lessons up to the Cambridge Junior School Certificate examination. At the beginning of the First Five Year Plan in 1951-52, there were 32 Middle English (Indian) schools in the district of which one was managed by a municipality, 28 were private institutions receiving grants-in-aid from Government and 3 were privately run

¹ A. J. Dash—*Bengal District Gazetteers : Darjeeling* Calcutta, 1947 pp.266-7.

unaided schools. A total of 4,234 boys and 1,577 girls were attending them.¹

In the fifties the structure of secondary education underwent some basic changes as a result of which the former Middle English schools were transformed into 4-class Junior High schools in addition to the Senior Basic schools catering for educational requirements at an equal level. In 1955-56, there were 33 Junior High schools in the district on which Government spent a total amount of Rs. 1,57,670. The following table furnishes information about Junior Secondary education in the district in 1960-61 and 1965-66.

**JUNIOR SECONDARY EDUCATION IN DARJILING DISTRICT
IN 1960-61 & 1965-66²**

	1960-61	1965-66
No. of Junior High schools for boys	24	19
No. of Junior High schools for girls	7	5
Total No. of boy students	1,763	1,716
Total No. of girl students	773	1,162
Total direct Government expenditure (Rs.)	2,04,897	Not available
No. of Senior Basic schools for boys	5	6
No. of Senior Basic schools for girls	—	—
Total No. of boy students	187	256
Total No. of girl students	150	120
Total direct Government expenditure (Rs.)	33,097	Not available

The decrease in the number of Junior High schools and their pupils between 1960-61 and 1965-66 is attributable to the fact that in the intervening period many of the former Junior High schools were upgraded into High or Higher Secondary schools.

¹ *Quinquennial Review on the Progress of Education in West Bengal for the years 1947-48 to 1951-52*. Calcutta, 1953. p. 54.

² Source : Directorate of Education, Government of West Bengal : the expenditure figures are from the District Inspector of Schools, Darjiling.

The following table¹ gives a picture of thanawise distribution of 4-class Junior High and Senior Basic schools in Darjiling district on 31 December 1966.

Name of thana	No. of Junior High schools		No. of Senior Basic schools	
	Privately run Govt.-aided schools	Privately run un-aided schools	Privately run Govt.-aided schools	Privately run un-aided schools
Darjiling	1	2	—	—
Jore-Bungalow	—	—	—	—
Sukhiapokhri	1	—	—	—
Pulbazar	1	—	—	—
Rangli-Rangliot	—	—	—	—
Kurseong	5	—	—	—
Mirik	1	—	—	—
Kalimpong	8	—	2	2
Gorubathan	1	—	1	—
Siliguri	4	—	—	—
Kharibari	—	—	—	—
Naksalbari	1	—	—	—
Phansidewa	1	—	—	1
Total for the district	24	2	3	3

Besides these Indian schools, Anglo-Indian schools like the St. Helen's Convent, Kurseong and the St. Joseph's Convent, Kalimpong, although Higher Secondary schools, offer courses for the School Final Examination and may, therefore, be considered as Junior Secondary schools.

In the 'Annual Report of the Administration of the Bengal Presidency During the Year 1878-79', we find that two students from the St. Paul's School, Darjiling sat for the Entrance Examination of that year (pp. 473-4). Although the school was meant for European and Anglo-Indian students, it appears that it was also following the course of studies laid down by the University of Calcutta, even before it was authorized to conduct classes for the Cambridge Senior School Certificate examination. The first

¹ Source : District Inspector of Schools, Darjiling.

reference to the St. Joseph's College (which was really a school for boys) as a High school is found in the 'Annual Report of the Administration of the Bengal Presidency during the Year 1880-81' (p. 445) wherein the Diocesan Girls' School is also referred to as a High school although, curiously, it does not find mention as such in the 'First Quinquennial Report on the State of Education in Bengal : 1892-93 to 1896-97' (p. 141). On the other hand, there are reasons to believe that the Loreto Convent became a High school some time in the eighties and was, in fact, the first of the girls' schools in the district to become so. The first Indian school, meant for the Nepalese, Bhutia, Tibetan, Lepcha, Bengali and Hindusthani boys to become a High school was the Darjiling Zilla School, later renamed as the Darjiling Government High School. In 1892 the former Anglo-Hindi Middle School and former Lepcha and Bhutia Boarding and Artizan School, both managed by the Government of Bengal, were merged to form a High school under the new name of Darjiling Zilla School. The first school for girls, managed by private Indians for Indian girls to become a High school was the Maharani Girls' School. Established in 1908, it was upgraded to a High school within three years in 1911.

In 1943-44 the following High schools functioned in the district.

Type	Name	Established in	Upgraded as High schools in
Indian	Kalimpong Girls' H. E. School, Kalimpong (Scots Mission)	1840	1924
"	Government English High School, Darjiling	1872-92	1892
"	Scottish Universities Mission Institute, Kalimpong	1887	1922
"	St. Alphonsus M. E. School, Kurseong (Roman Catholic Mission)	1888	—
"	Nepali Girls' H. E. School, Darjiling	1890	1942
"	Maharani Girls' H. E. School, Darjiling	1908	1911
"	Siliguri Boys' H. E. School, Siliguri	1918	1920

Type	Name	Established in	Upgraded as High Schools in
„	St. Robert's H. E. School, Darjiling (Roman Catholic Mission)	1934	—
„	Pusparani Roy Memorial H. E. School, Kurseong	1943	—
Anglo- Indian	St. Paul's School, Darjiling (Church of India, Burma & Ceylon)	1868	1878
„	Victoria Boys' School (Government), Dow Hill, Kurseong	1871-72	1912-13
„	St. Joseph's Seminary/ College, Darjiling (Roman Catholic Order of the Society of Jesuits)	1881-88	1881-88
„	St. Michael's (former Diocesan) Girls' High School, Darjiling	1886	—
„	St. Helen's Girls' High School and Convent, Kurseong (R. C. Daughters of the Cross)	1890	—
„	Mount Hermon Co- educational School, Darjiling (Methodist Episcopal Church of America)	1895	—
„	Dow Hill Girls' H. E. School, Kurseong (Government)	1897-98	—
„	Goethal's Memorial High School, Kurseong (R. C. Society of Jesuits)	1907	—
„	St. Joseph's Convent and Girls' High School, Kurseong (Roman Catholic Order of the Sisters and Joseph of Cluny)	1938	1944

In 1943-44, the Indian-type High English schools had 2,122 boys and 1,266 girls on their rolls of whom boys of Nepalese, Bhutia, Tibetan and Lepcha origin numbered 1,325 and girls of the same origin 733. The total expenditure incurred by these schools for that year amounted to Rs. 1,52,118 of which Rs. 59,076 was paid out of the State exchequer.

In 1950-51 there were 16 Indian-type High English schools in the district with a total of 6,815 pupils of both sexes. Of them, 2 were managed by Government, 11 were privately run Government-aided schools while 3 were privately managed unaided institutions. Besides, there were 9 Anglo-Indian schools, managed mostly by European and American Christian missions. The Indian-type High English schools involved a total governmental expenditure of Rs. 3,56,780 in 1950-51. In 1955-56, there were 28 Indian-type High English schools in the district with 8,072 pupils of both sexes attending them besides 9 Anglo-Indian High schools.

In 1950 the West Bengal Board of Secondary Education replaced the University of Calcutta as the authority controlling secondary education in the State. With this change, the name of the school leaving examination was changed from Matriculation (previously Entrance) to School Final. In 1956-57 secondary education was subjected to further changes and reorganization ; it was decided to introduce 11-class Higher Secondary schools by gradually upgrading the existing 10-class ones and to diversify higher secondary education by introducing specialized streams of learning like Humanities, Science, Commerce, Technology, Agriculture, Fine Arts and Home Science. Six of the Indian-type 10-class High schools in the district, which could provide the requisite facilities, were upgraded into 11-class Higher Secondary schools in 1956-57 with 2,557 pupils on their rolls. The remaining 22 continued to function as 10-class High schools for the time being with 6,400 pupils attending them.

In pursuance of the recommendation of the Indian Education Commission 1964-66, a new pattern of education with 10+2 classes has been introduced in the state for Secondary and Higher Secondary stages. The new 10-year course at the secondary level with a terminal examination conducted by the

West Bengal Board of Secondary Education came into force from January 1974, followed by a 2-year Higher Secondary course with a terminal examination conducted by the newly started West Bengal Council of Higher Education from July 1976.

The following table, prepared from data supplied by the Directorate of Education, West Bengal, gives a picture of secondary education (Indian-type) in the district in 1960-61 and 1965-66.

	1960-61	1965-66
(1) No. of 10-class High schools for boys	16	16
(2) No. of 10-class High schools for girls	4	9
(3) No. of boy students in (1)	4,631	4,768
(4) No. of girl students in (2)	1,545	3,890
(5) Total direct governmental expenditure on (1) and (2)	Rs. 1,02,539	(Not available)
(6) No. of 11-class Higher Secondary and Multipurpose schools for boys	7	14
(7) No. of 11-class Higher Secondary and Multipurpose schools for girls	5	5
(8) No. of boy students in (6)	3,643	8,026
No. of girl students in (7)	1,963	3,480
Total direct governmental expenditure on (6) and (7).	Rs. 2,75,353	(Not available)

The list below gives particulars of 10-class High schools (Indian) in the district as on 1 January 1967.

Name of school	Year of establishment	Year of up- grading into High school
Nepali Girls' High School, Darjiling	1890	1942
Sukhiapokhri High School, Sukhiapokhri	1900	1952-53
Turnbull High School, Darjiling	1906	1952
Ghoom Boys' High School, Ghoom	1910	1956
St. George's High School, Pedong	—	1952
Ghoom Girls' High School, Ghoom	1923	1963

Name of school	Year of establish- ment	Year of up- grading into High School
Sri Ramakrishna Girls' High School, Kurseong	1924	1965
Phansidewa High School, Phansidewa	1940	1946
Pranami Mandir Girls' High School, Kalimpong	1944	1966
Pokhriabong High School, Pokhriabong	1947	—
Griffith's High School, Takdah	1947	—
Saradeswari Girls' High School, Darjiling	1948	1965
Santirani High School, Sonada	1948	—
Kharibari High School, Kharibari	—	1948
Ramakrishna Siksha Parishad Boys' High School, Darjiling	1949	—
Bagrakot High School, Bagrakot	1950	—
Netaji High School, Siliguri	1954	—
Darjiling Hindi High School, Darjiling	1956	—
Netaji Girls' High School, Siliguri	1956	1965
Hakimpara Girls' High School, Siliguri	1958	1964
Mirik High School, Mirik	—	1958
Krishnamaya Memorial High School, Siliguri	1961	—
St. Peter's High School, Kamala- bagan	1963	—
Vidyasagar High School, Bijanbari	1964	—

The following is a list of 11-class Higher Secondary and Multi-purpose schools of Indian type in the district as on 1 January 1967.

Name of school (with courses offered)	Year of establish- ment	Year of conversion into High school	Year of conversion into Higher Secondary school
Darjiling Government High School (Huma- nities & Science)	1871-72	1892	1956-57
S.U.M. Institution, Kalimpong (Huma- nities & Science)	1887	1922	—

Name of school (with courses offered)	Year of establish- ment	Year of conversion into High school	Year of conversion into Higher Second- ary school
St. Alphonsus High School, Kurseong (Humanities)	1888	1936	—
Kalimpong Girls' High School (Humanities)	1905	1924	1959
Maharani Girls' High School, Darjiling (Humanities, Science & Home Science)	1908	1911	1957
Siliguri Boys' High School (Humanities, Science & Commerce)	1918	1920	—
St. Teresa's Girls' High School, Darjiling (Huma- nities, Home Science & Fine Arts)	1928	1953	1957
St. Philomena's Girls' High School, Kalimpong (Humani- ties)	1928	1959	1967
Jyotsnamayee Girls' High School, Siliguri (Humanities and Science)	1929	1957	1960
St. Robert's High School, Darjiling (Humanities and Science)	1934	—	—
St. Joseph's Girls' High School, Kurseong (Humani- ties and Science)	1938	1944	1966
Pushparani Roy Memorial High School, Kurseong (Humanities and Science)	1943	—	—

Name of school (with courses offered)	Year of establish- ment	Year of conversion into High school	Year of conversion into Higher Sec- ondary school
Saraswati High School, Mungpoo (Humanities)	1946	—	—
Siliguri Girls' High School, Siliguri (Humanities, Science and Home Science)	1948	1949	1957
Terai Tarapada Adarsha Vidyalyaya, Siliguri (Humanities, Science and Commerce)	1950	—	—
Kalimpong Govern- ment High School (Humanities, Science and Technology)	—	1951	—
Kumudini Homes, Kalimpong (Huma- nities, Science and Commerce)	—	1952	—
Nandaprasad High School, Naksalbari (Humanities and Science)	—	1953	—
Siliguri Hindi High School (Humanities and Commerce)	—	1956	—
Bani Mandir Railway High School, Siliguri (Humanities and Science)	1956	—	—
Nilnalini Vidyamandir, Siliguri (Humanities, Science & Commerce)	1956	—	—

Besides these, the following Anglo-Indian Higher Secondary schools functioned in the district on 1 January 1967.

Management ¹	Name of school with courses offered	Year of establishment	Year of conversion into High school	Examination for which students are prepared
R.C.L.O.	Loreto Convent for Girls, Darjiling (Science & Humanities)	1846	1880	S.C.
C.I.	St. Paul's School, Darjiling (Science & Humanities)	1868 (?)	1878-79 (?)	S.C. & H.S.C.
Government	Victoria Boys' School, Kurseong (Science & Humanities)	1871-72	1912-13	S.C.
R.C.S.J.	St. Joseph's School, Darjiling (Science & Humanities)	1881/1888 (?)	1881/1888 (?)	S.C. & H.S.C.
R.C.D.C.	St. Helen's Convent, Kurseong (Humanities & Domestic Science)	1890	—	S.C.
N.C.	Mount Hermon School, Darjiling (Humanities, Science & Commerce)	1895	—	S.C. & H.S.C.
Government	Dow Hill Girls' High School, Kurseong (Humanities, Science & Domestic Science)	1897-98	—	S.C.
R.C.B.I.	Goethal's Memorial High School, Kurseong (Humanities & Science)	1907	—	S.C.
R.C.J.C.	St. Joseph's Convent, Kalimpong (Humanities & Science)		—	S.C.

It will be seen from the above tables that 12 of the 24 10-class High schools and 28 of the 30 Higher Secondary schools in the district are situated in urban areas while 10 of the remaining 12 schools of the former type are located in rural areas in the hills and 2 in similar areas in the plains. Two of the Higher Secondary

¹ Notes on abbreviations used : R.C.L.O.—Roman Catholic Loreto Order; C.I.—Church of India, Burma & Ceylon; R.C.S.J.—Roman Catholic Society of Jesuits; R.C.D.C.—Roman Catholic Daughters of the Cross; N.C.—Non-conformist; R.C.C.B.I.—Roman Catholic Christian Brothers of Ireland; R.C.J.C.—Roman Catholic Sisters of St. Joseph of Gluny. S.C.—Indian School Certificate of the University of Cambridge Local Examination Syndicate taken at the end of Class XI; H.S.C.—Higher School Certificate examination taken two years after S.C.

schools function in the rural areas in the hills and the plains portions of the district.

The following statement gives the number of Indian-type High and Higher Secondary Schools in the various police stations of the district under different management as on 1 January 1967.

Name of Police Station	Privately run Govt.-aided High schools	Privately run un-aided High schools	Government managed Higher Secondary schools	Privately run Govt.-aided Higher Secondary schools	Privately run unaided Higher Secondary schools
Darjiling	3	2	1	2	1
Jore-Bungalow	3	—	—	—	—
Sukhiapokhri	1	1	—	—	—
Pulbazar	—	1	—	—	—
Rangli-Rangliot	—	1	—	—	—
Kurseong	1	1	—	1	1
Mirik	—	1	—	—	—
Kalimpong	2	—	1	3	—
Gorubathan	—	—	—	—	—
Siliguri	4	—	1	5	—
Kharibari	1	—	—	—	—
Naksalbari	—	—	—	1	—
Phansidewa	2	—	—	—	—

The following table prepared from data provided by the Directorate of Education, West Bengal would indicate the progress of general collegiate education in the district between 1960-61 and 1965-66.

General collegiate education

	1960-61	1965-66
Total number of colleges	5	6
No. of colleges for boys	1	1
No. of colleges for girls	—	1
No. of colleges for both sexes	4	4
Total enrolment of students in Arts courses	1,125	1,403
No. of boys in Arts courses	756	835
No. of girls in Arts courses	369	568

	1960-61	1965-66
Total enrolment of students in Science courses	708	590
No. of boys in Science courses	591	508
No. of girls in Science courses	117	82
Total enrolment of students in Commerce courses	—	491
No. of boys in Commerce courses	—	468
No. of girls in Commerce courses	—	23
Total direct Government expenditure	Rs.1,05,426	(Not available)

St. Paul's College

St. Paul's School, Darjiling was the first institution to take up post-Secondary education in the district. According to the Annual Report of the Administration of the Bengal Presidency during 1881-82, six students of the St. Paul's School were "reading at the institution for the F.A. (First Arts) Examination, three being in the first year and three in the second year class."¹ Analogous reports for other years state that there were 3, 5 and 5 students respectively in 1886, 1887, and 1888 at the Government-aided St. Paul's School (College Classes). In 1893, the College Department of the said institution had 26 students on its rolls. Due to financial difficulties, the College Department was closed down some time in 1898-99. From all accounts, it appears that this institution, which prepared students for the First Arts Examination of the University of Calcutta, never quite achieved the status of a college, although it received grants-in-aid from Government as a college.

In 1935-36 the Church of India, Burma and Ceylon, which runs this institution, took steps to revive the long defunct College Department and St. Paul's College got the affiliation of the University of Calcutta from that year. It remained an Intermediate college preparing students for the Intermediate in Arts and Intermediate in Science examinations as long as it was under the University of Calcutta. Thereafter it came under the North Bengal University and was upgraded to a Degree college around 1962-63.

The College is housed in the spacious campus of the St. Paul's School at Jalapahar, Darjiling. The laboratories are well-equipped and the students use the reading room and the library of the school which are well-stocked with books needed by them. It is a strictly

¹ *Annual Report of the Administration of the Bengal Presidency During the Year 1881-82*, p. 383.

residential institution with adequate hostel and hospital facilities. Games, sports, athletics and N. C. C. training are greatly encouraged by the authorities who also sponsor the activities of the Debating Society, the History Society, the Geography Society, the Science Society, the Amateur Dramatic Society and the Photographic Society. Some endowed stipends and scholarships are awarded annually to meritorious and needy students.¹

St. Joseph's College at North Point, Darjiling, run by the Roman Catholic Society of Jesuits, grew out of the former 'Special Department' of the St. Joseph's Seminary, opened in 1892, to prepare candidates for various examinations for entry into different public services. In 1897 the College Department of St. Joseph's Seminary was affiliated to the University of Calcutta up to the First Arts standard.² The name of the whole educational complex at North Point was changed thereafter to St. Joseph's College but the college never received any grant-in-aid from Government. The college classes were, however, closed some time in 1901-02 due to financial difficulties.³

St. Joseph's College
Darjiling

Around 1923-24 "the subject of university education for Anglo-Indians (and domiciled Europeans) aroused a new and welcome interest. In some quarters, there was a feeling that the most satisfactory solution was the creation of an Anglo-Indian university. But the practical difficulties were innumerable; and many persons felt that it was a mistake to isolate the Anglo-Indian during the whole course of his educational career from the youth of the country with whom he must learn to work and live; and opinion generally has come round to the view that higher education for the European and Anglo-Indian must be developed in connexion with the local universities. In 1923 the Anglo-Indians and Domiciled Europeans Association, Calcutta, proposed that the two Government institutions at Kurseong (viz., the Victoria Boys' School and the Dow Hill Girls' School) should be turned into intermediate colleges and affiliated to the Dacca University. But the proposal was impossible as the sphere of that University is limited by statute to a small circle around Dacca. The only alternative was to find a way of approach from the European schools to the Calcutta University."⁴

The management of the institution accordingly decided to revive the college and in 1927 it became affiliated to the University of Calcutta for preparing students for the Intermediate in Arts

- 1 University of Calcutta—*The Calender* 1956, Part I. Calcutta, 1958. pp. 903-4.
- 2 *First Quinquennial Review of Education in Bengal, 1862-63 to 1896-97*. Calcutta, 1897, p. 30.
- 3 *The Third Quinquennial Review of the Progress of Education in Bengal, 1902-03-1906-07*, p. 130.
- 4 *The Seventh Quinquennial Review of Progress of Education in Bengal, 1922-23 to 1926-27*. Calcutta, 1928, p. 79.

and Intermediate in Science examinations. But the disastrous earthquake of 1934 caused enormous damage to the college building which could not be commissioned again before 1936-37.¹ In 1949 classes were started for the Bachelor of Arts degree and in 1951 for the Bachelor of Science degree of the University of Calcutta. For some years from 1949 the institution conducted evening classes, which, however, were discontinued after about seven years.² After the establishment of the North Bengal University, it became a degree college under the same with permission to conduct Pass and Honours classes in Arts and Science subjects.

There are several buildings to house the Arts and Science classes, laboratories, the administrative section and the library which contains 12,000 books and acquires, on an average, 1,400 more per year. The college campus, spread over 4 acres, offers adequate facilities for athletics, outdoor and indoor games and N. C. C. training. There is an auditorium with a capacity of 500 persons, where debates, symposia and dramatic performances are held. Two college hostels can accommodate 160 boys while 20 boarders can live in the rented girls' hostel. In 1967, 491 boys and 93 girls were attending the institution which had 15 and 16 teachers in the Science and Arts sections respectively.³

Victoria Boys' School, Dow Hill, Kurseong opened Intermediate classes in Arts around 1933 but it is not known when they were closed after 1947. It is also not clear how these college classes could be run without the institution's having corresponding affiliation from the University of Calcutta.

Victoria Boys'
School (Intermedi-
ate classes) Dow
Hill, Kurseong

The Scottish Universities Mission College, Kalimpong grew out of the Scottish Universities Mission Institution High School. "The local people raised enough money to build a hostel and it was arranged that the local High school (Scottish Universities Mission Institution) would house the college and supply teaching and clerical staff. It was also arranged that the college should be co-educational."⁴ In 1933 the college became affiliated to the University of Calcutta for preparing students for the Intermediate in Arts and Science examinations. The college was given two large lecture rooms, tutorial rooms and two laboratory rooms in the main building of the Institution while the library of the Institution was remodelled to serve the needs of college students.

The Scottish Uni-
versities Mission
College, Kalimpong

1 *The Ninth Quinquennial Review of the Progress of Education in Bengal, 1932-37*, Calcutta, 1939, p. 62.

2 University of Calcutta—*The Calender*, 1956 : Part I. Calcutta, 1958 p. 889.

3 Source : Principal, St. Joseph's College, North Point, Darjiling.

4 University of Calcutta—*The Calender* 1956, Part I. Calcutta, 1958 p. 899.

The old management handed over the charge of this institution to a new managing committee in deference to the wishes of the local people who had not only contributed to the growth of the college at its initial stage but had also sustained it over the years. At the instance of the new managing committee, the Government-sponsored Kalimpong College came into existence around 1957-58 and it soon received affiliation from the University of Calcutta for preparing students for the Bachelor of Arts examination.

Kalimpong College

The college has its own building and a hostel for boys ; the girl students are lodged in a rented premise. There are adequate facilities for indoor and outdoor games, athletics and N. C. C. training. The Students' Social Service Association conducts night schools for adults.

The Salesian College, Sonada "was first established in 1926 by the Salesian Society in Shillong, Assam with the name of 'Our Lady's House' and was changed later, with the permission of the Calcutta University, to 'Salesian College'. It obtained its affiliation to the I. A. standard of the University of Calcutta in 1935. On 10 April 1935, the whole building with its contents was destroyed by fire. After two years' wandering existence at Woodcot, Kurseong and at Bandel Church, Hugli it finally acquired a permanent home in the old military brewery at Sonada." A new building was built for the college in 1948 when its affiliation was extended to the B. A. (Pass) standard. Subsequently, it was permitted to teach up to Honours standard in certain subjects. It is now affiliated to the North Bengal University as a degree college.

Salesian College,
Sonada

Its three-storeyed building stands on an extensive campus. Adequate facilities are available for indoor and outdoor games, athletics and N. C. C. training. The students have a debating society, a dramatic club, a college choir and an orchestra. The Academy of Mary Immaculate, managed by the college authorities, meet every Sunday to hold lectures on Christian theology, comparative religion and urgent social and economic problems. It is a residential institution with an attached hospital. It offers some scholarships, stipends and half-free studentships to meritorious and needy students.

According to the Quinquennial Review on the 'Progress of Education in West Bengal for the period 1942-43 to 1946-47', there was a degree college in Arts in Kurseong town in 1947 called St. Helen's College.¹ Evidently, it used to be managed by the Roman Catholic Daughters of the Cross Mission which manages

St. Helen's College,
Kurseong

¹ *Quinquennial Review on the Progress of Education in West Bengal for the period 1942-43 to 1946-47*, pp. 52-54.

the affairs of the St. Helen's Convent. It is not known when the institution was opened or closed.¹

Darjiling Govern-
ment College,
Darjiling

Darjiling Government College, catering mainly to the needs of the hill-people, was opened in 1948 in the spacious buildings of the former St. Michael's School on Hill Cart Road with affiliation from the University of Calcutta for running intermediate classes in Arts and Science. In 1950 it was raised to the status of a first-grade degree college in Arts and Science with Honours classes in some of the important subjects. It is now a constituent college of the North Bengal University. It has laboratories for physics, chemistry, geography and biological sciences as also a library and a reading room.

The college campus being rather small, tennis, badminton and the like are played in it while the students use a field adjacent to the Raj Bhavan for large-area games. Facilities also exist for indoor games, gymnastics and N. C. C. training. A boys' hostel within the campus has accommodation for 60. The girls' hostel, with accommodation for 20, is within easy reach. A number of family housing units near by accommodate some of the teachers. The teaching staff belong to the various branches of the West Bengal Education Service.

A large number of stipends, scholarships and free or half-free studentships are available to meritorious students of the Scheduled Castes and Tribes as also to other deserving pupils.

Siliguri College,
Siliguri

At the instance of prominent local people, Siliguri College was established in 1950, first as an Intermediate College in Arts and Science, for providing collegiate education to displaced refugee students from East Pakistan (now Bangladesh). In 1956-57 it came under Government's Sponsored College Scheme and in 1957-58 it was upgraded to a degree college in Science. Between 1963 and 1968 Honours courses were opened in a number of Arts subjects, Mathematics and Geography. In 1962-63 the college started an Evening section to conduct degree courses in Commerce subjects. In 1965-66 it was permitted to run Honours courses in Commerce subjects.

In 1966-67 1,075 boys (of whom 718 were in Commerce courses) and 405 girls (of whom 307 were in degree classes in Arts) were on the rolls of the institution while the teaching staff consisted of 18, 16 and 12 members respectively for the Arts, Science and Commerce sections.

The college is housed in nine buildings in a spacious campus providing facilities for sports and N. C. C. training. The college library has over 10,000 books and the annual acquisition averages 1,118 volumes.

¹ Source : Principal, St. Helen's Convent, Kurseong.

The boys' hostel within the college campus can accommodate 89 and the girls' hostel in a rented building can house 22 students.¹

Loreto College, Darjiling was founded in August 1961 as a joint venture of the Government of West Bengal and the Loreto Convent Darjiling Educational Society. In the same year, it received affiliation from the North Bengal University as a women's degree college in Arts subjects only with Honours courses in some of them. In 1967 it had 157 students and 11 wholetime and 3 part-time teachers.

Loreto College,
Darjiling

It is housed in two buildings. The college library has about 4,500 books with an annual acquisition averaging 120 volumes. The auditorium has a seating capacity of 260 persons. The college grounds, although spacious, are situated on a slope and cannot be used for games. The Loreto Convent School has, therefore, placed its fields at the disposal of the college which has no gymnasium nor N. C. C. training facilities.

The students themselves manage the literary, debating, dramatic, social service units etc. under a system of self-government recognized by the college authorities. The attached hostel has accommodation for 65 girls.²

At the instance of the Kurseong Citizens' Association, the Kurseong College was established in 1967 as a degree college in Arts with permission to conduct Commerce classes at the Pre-University level. Its affiliation to the North Bengal University is still a provisional one.

Kurseong College,
Kurseong

In 1967 the college had 161 students and 14 teachers, some of whom worked part-time. Since it has no building of its own, classes are held at the Darjiling Polytechnic Institution at Kakina House. A private trading concern has, however, donated to it about 5 acres of land on the Dow Hill Road.

An interesting feature is that, apart from the Siliguri College, all other colleges in the district offer Nepali language and literature as a vernacular subject to be chosen by the students at the Pre-University stage or while in degree classes in Arts or in Commerce. Some colleges, like the Darjiling Government College and the Kalimpong College offer, in addition to Nepali, the Tibetan language and literature as a vernacular subject at the aforesaid levels. The colleges managed by European Christian missions have classes in Alternative English as a vernacular subject. Bengali is taught as a vernacular subject in all the colleges while some of them also teach Hindi and/or Urdu.

Vernacular Languages taught

¹ Source : Principal, Siliguri College, Siliguri.

² Source : Principal, Loreto College, Darjiling.

Teachers' Training

The Rev. William Macfarlane, who devised a broad scheme of vernacular education for the district in 1869, opened a class for hill students for imparting training in the art and science of teaching from which grew the Training School at Kalimpong. His work was later taken over by the Scottish Universities Mission. In fact, the Training School for men attached to the Scottish Universities Mission Institute (which grew out of Macfarlane's School) and the Training School for Women attached to the Church of Scotland Mission Girls' Institution, both at Kalimpong, are two of the earliest institutions for teachers' training in the district, the latter having been established some time in the nineties of the last century.¹ Both these institutions trained teachers for Primary schools. Writing in 1947, A. J. Dash observed, "almost all the trained teachers employed in the hill area of the District obtained their training here" (Scottish Universities Mission Training School).² It seems that in 1879 there was another institution of this kind—the Darjiling Training School—functioning in Darjiling town but nothing more is known about it.

In 1899-1900, teachers' training classes were inaugurated at the Victoria Boys' School, Dow Hill, Kurseong to train domiciled European and Anglo-Indian men and women teachers for European and Anglo-Indian Primary and Secondary schools in India. It was decided in 1901 that Indian teachers would also be trained here for employment in Indian-type Primary schools. But the response from male students being very poor, the classes were shifted from the Victoria Boys' School in 1903 to the Dow Hill Girls' School and came to form, in the following year, the Dow Hill Training College for Women for training lady teachers for European and Anglo-Indian schools.³ It was last heard of in 1933-34 when it had 18 students.⁴ But it was no longer there in 1944.⁵

In 1944 there were three teachers' training schools in the district, one at Kalimpong for boys run by the Scottish Universities Mission Institute, another, also at Kalimpong, for girls, run by the Church of Scotland Mission and the third, for girls, at the St. Joseph's School, Kurseong.⁶ The last named was closed down temporarily in 1949-50. In 1950-51, the Government-managed Basic Training School (later College) was opened at

¹ The first reference to the school is found in the *First Quinquennial Review of the Progress of Education in Bengal. 1892-93 to 1896-97.* p. 96.

² A. J. Dash—*op. cit.*, p. 271.

³ The account has been taken from the *First, Second and the Third Quinquennial Review(s) of the Progress of Education in Bengal*, published by the Department of Education, Government of Bengal. Calcutta.

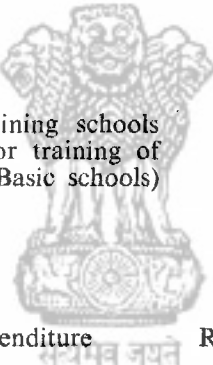
⁴ *Ninth Quinquennial Review on the Progress of Education in Bengal for the years 1932-1937*; Calcutta, 1939; p. 120.

⁵ A. J. Dash—*op. cit.*, p. 268.

⁶ *Ibid.*, *loc. cit.*

Kalimpong for training teachers for the Junior Basic and Primary schools. In 1957-58 it was upgraded to a teachers' training degree college for preparing students as teachers in Senior Basic and Multipurpose schools having facilities for Basic education. In 1954 the Government-managed People's (Janata) Basic Training College was opened at Kalimpong for would-be teachers of Basic training schools and for functionaries of the Government's Social Education Programme. The Government-aided Shri Ramakrishna B.T. College was established in 1957 at Darjiling town by the Ramakrishna Mission. It is affiliated to the North Bengal University and admits students who are at least graduates in Arts, Science or Commerce. The Scottish Universities Mission Institute Teachers' Training School at Kalimpong was upgraded to a teachers' training degree college some time between 1961 and 1964.

The following statement prepared from data provided by the Directorate of Education, West Bengal gives particulars of teachers' training institutions in the district between 1960-61 and 1965-66.



	1960-61	1965-66
No. of Teachers' Training schools (including schools for training of teachers for Junior Basic schools)	2	1
No. of male students	39	Not available
No. of female students	28	4
Direct Government expenditure	Rs. 16,846	Not available
No. of Teachers' Training colleges (including colleges for training of teachers for Senior Basic schools)	2	4
No. of male students	113	167
No. of female students	50	73
Direct Government expenditure	Rs. 91,163	Not available

The first significant attempt to introduce vocational training in the district was made by the missionaries who founded the Scottish Universities Mission Institute in 1887, by Mrs. Katherine Graham who in 1887 founded a teaching-cum-training institute for hill girls which later became the Central Lace school, and subsequently the Kalimpong Industrial School for Girls and by Rev. J.A. Graham who in 1900 founded the St. Andrews Colonial Homes and the Kalimpong Industrial School for boys. Both

TECHNICAL & VOCATIONAL EDUCATION

the Kalimpong Industrial School for Girls and the Kalimpong Industrial School for Boys, comprising various training units, are managed by the Kalimpong Mission Industries Association. The origin of the former "dates back to 1897 when Mrs. Graham, wife of the Very Rev. J.A. Graham, D.D., C.I.E. of the Church of Scotland Mission started teaching hill-women lace-making to supplement their income from agriculture."¹ The Central Lace School, Kalimpong grew from this modest beginning and, at its initial stages, was run by the Church of Scotland Mission. In 1903-04, two branch schools were opened elsewhere in the district with instructors sent out to them from the main institution and it was proposed to open more such schools in Darjiling, Jalpaiguri and Koch Bihar districts as also in Sikkim to train up village women in the useful art of lace-making. In 1904 training courses in wool-dyeing and wool-weaving were introduced and Government came forward to help the institution with a grant-in-aid in 1907.² As the number of subjects of training went on increasing, the Church of Scotland Mission decided to have different schools for each specialized subject. Thus in the period from 1912 to 1917 we find that besides the Kalimpong Central Lace School with 5 branch lace schools under it, there were the Kalimpong Embroidery School (with two branch embroidery schools), the Wool-Dyeing and Weaving School, and the General Industrial School imparting teaching in tailoring, knitting etc. to women.³

The Kalimpong Mission Industrial School for Boys was started by Mrs. Graham and Rev. Graham of the Church of Scotland Mission around 1900 but its growth was slower than that of the girls' school. Between 1912-13 and 1916-17 it ran three vocational branches in carpentry, tailoring and gardening. In 1924 both the schools with their various departments got registered under the Companies Act as the Kalimpong Mission Industries Association. Commenting on this organization, the relevant official report stated: "The Kalimpong schools are managed by the Kalimpong Mission Industries Association. The 8 industrial schools for boys have been returned as one school. The school for boys gives instruction in carpentry, tracing, dyeing, tailoring, gardening, etc. Similarly 5 schools for girls have also been returned as one school. The school for girls teaches embroidery, lace and carpet-making and weaving. The enrolment was 371 in 1936-37 against 415 in 1931-32. The total cost was Rs. 7,800 in 1936-37 against Rs. 27,409 in 1931-32. The Government grant was Rs. 7,800 in 1936-37 against Rs. 6,000

1 A. J. Dash—*Bengal District Gazetteers : Darjeeling*; Calcutta, 1947; p. 154.

2 *Third Quinquennial Review on the Progress of Education in Bengal for the years 1902-03 to 1906-07*; Calcutta, 1907; pp. 124-25.

3 *Fifth Quinquennial Review on the Progress of Education in Bengal for the years 1912-13 to 1916-17*; Calcutta, 1918; pp. 88-90.

in 1931-32.”¹ Writing in 1947, A. J. Dash observed : “The School is essentially a technical one established for the purpose of developing cottage industries and of inculcating the habit of industry amongst the local peoples. No distinction is made between Christian and non-Christian and no fees are charged for instruction. Apprentices receive a scholarship until they are in a position to earn a living wage, the payment of which is the first aim of the School.”²

Earlier in 1899-1900, St. Helen's Convent School, Kurseong had opened vocational classes in gardening, needle-work, nursing and house-management for domiciled European and Anglo-Indian girls.³ It is not known when these classes closed down.

The Goethal's Memorial Orphanage and School at Kurseong meant for European and Anglo-Indian orphans and managed by the Roman Catholic Christian Brothers of Ireland and established for introducing technical classes in civil and mechanical engineering and in 1912-13 we find it preparing students for the sub-overseer course.⁴ In 1914-15 the Joint Technical Education Board of Bengal and Bihar permitted it to introduce 3-year licentiate courses in the mechanical and electrical branches of the overseer examination.⁵ Since then it has been receiving an annual grant-in-aid from Government and preparing pupils for the L.M.E., L.E.E., and L.C.E. diplomas. From 1947 it is admitting students other than domiciled European and Anglo-Indian orphans.

Around 1890 St. Joseph's School, Darjiling started industrial training classes for preparing European and Anglo-Indian students for the sub-overseership examination but they did not last beyond 1910. A sub-overseers' course for Europeans and Eurasians was initiated at the Victoria Boys' School in 1904 but it seems that it was discontinued around 1918.

The Industrial Training Centre at Tung was established in 1949-50 as a joint project of the Union and State Governments on a 60 : 40 expense-sharing basis, especially for the benefit of hillmen. The National Council of Training in Vocational Education lays down the courses and syllabuses followed by the school while the State Council supervises their actual implementation. It imparts training in engineering trades of fitters,

¹ *Ninth Quinquennial Review on the Progress of Education in Bengal for the years 1932-37*; Calcutta, 1939; p. 148.

² A. J. Dash—*op. cit.*, p. 154.

³ *Annual Report on the Administration of the Bengal Presidency During the year 1899-1900*, p. 325.

⁴ *Fifth Quinquennial Review of the Progress of Education in Bengal for the year 1912-13 to 1916-17*; Calcutta, 1918; p. 77.

⁵ *The Annual Report on the Administration of the Bengal Presidency for the year 1914-15*; Calcutta; p. 128.

electricians, wiremen, motor-mechanics, carpenters, blacksmiths etc. Non-engineering trades include those of printing machine operators, press compositors, proof-readers, tailors, book-binders, woollen-goods weavers etc. The courses last from one to two years. In some branches women-trainees are also admitted.

No tuition fee is charged from the students who are required to have passed the School Final or an equivalent examination before admission. Apart from Government's contributions towards meeting tuition fees, stipends from the Tea Boards, Ex-Servicemens Association, Planters' Association are available to deserving students. The newly constructed building of the school can accommodate 388 students at a time while there is room for 150 boarders at the attached boys' hostel.

ORIENTAL EDUCATION

The *tols* for Sanskrit learning and the Madrasahs for Arabic, Persian, Urdu and Islamic studies occurring in the district cannot claim any traditional background as they are essentially of the twentieth century. Some of the old Buddhist monastic schools have, however, adopted the nomenclature of *tols*, such as the one attached to the 'Red-sect' monastery at Ghoom. But they are very few in number. Following is a list of *tols* and *madrasahs* in the district : *Madrasahs* : (1) Anjuman Islamia Junior Madrasah, Darjiling (Government aided), (2) Darjiling Girls' Maktab, Darjiling, (aided by Darjiling Municipality), (3) Azad Primary School, Kurseong, (Government aided) and (4) Anjuman Islamia Maktab, Kalimpong, (Government aided). *Tols* : (1) Darjiling Sanskrit Tol, Darjiling (aided by Darjiling Municipality), (2) Radhakrishna Tol, Siliguri, (unaided), (3) Sarvodaya Gurukul Sanskrit Tol, Kurseong, (aided by Kurseong Municipality), (4) Pasupati Sanskrit Tol, Kalimpong (unaided), (5) Hareswar Sanskrit Tol, Rhenok (unaided), (6) Soladevi Sanskrit Tol, Kalimpong (unaided) and (7) Buddhist Monastic Tol, Ghoom (Government-aided).

NORTH BENGAL UNIVERSITY

In December 1961 the Government of West Bengal decided, under the North Bengal University Act (West Bengal Act XXVII of 1961), to set up a federative-cum-postgraduate teaching type university which would function as an affiliative, syllabus-making, examination-conducting and degree-endowing body for all the degree colleges of North Bengal situated in the districts of Koch-Bihar, Jalpaiguri, Darjiling, West Dinajpur and Maldah so far as general education in Arts, Science, Commerce, Engineering, Medicine and Teachers' Training were concerned. The University would also conduct post-graduate classes in as many Arts, Pure Science and Commerce subjects as possible and would also arrange to set up degree colleges in engineering and medicine.

A site was selected on the National Highway No. 31 about 6 miles north-west of Siliguri, and a little over 200 acres of Khas Mahal land was requisitioned within the Bairatisal *mouza* of the

Atharghai Union and named as Raja Rammohanpur, after Raja Rammohan Roy. The University started functioning under Government Notification No. 1694 Edn. of 16 May 1962. By 1963 it began to hold degree examinations for all North Bengal colleges affiliated to it and from the academic session of 1963-64 post-graduate classes in a number of Arts and Pure Science subjects. The number of faculties and the post-graduate courses offered by it has been on the increase since its inception. Excepting M.Sc. classes in biological sciences (which are held at the Darjiling Government College, Darjiling), post-graduate classes are held in the buildings situated within the spacious University campus. There are two hostels for male and female students of the post-graduate classes and a number of family housing units for the members of the staff within the campus area. Facilities for both indoor and outdoor games, athletics, N.C.C. training and medical treatment are available within the campus for the students and members of the staff.

In deference to the wishes of the people of North Bengal, a degree college in Engineering and Technology was opened at Jalpaiguri after the founding of the North Bengal University. But as there was considerable difference of opinion regarding the location of the proposed Medical College, nothing could be done about its establishment till October 1967 when the State Government finally took the decision to set it up at a site adjacent to the North Bengal University and requisitioned 60 acres of land for the project. The estimated expenditure on land and buildings alone would be Rs. 27,00,000 at 1967 prices.

MEDICAL COLLEGE

In a broad sense, all education has a social content. But 'social education' aims at making education available to socially handicapped persons in particular. Adult education, moral instructions, dissemination of family-planning knowledge or training in improved agriculture are illustrations in point. Social education programme may also involve reaching educative materials to people through libraries, film centres etc.

SOCIAL EDUCATION

The first steps in this field were taken by various Roman Catholic and Protestant missions in the Sadar and Kurseong subdivisions and by Protestant missions in Kalimpong subdivision by the third quarter of the last century. The adult literacy centres started by them, specially those in rural areas and in the Kalimpong subdivision did not live long. The Sunday Schools for moral and parochial instructions lasted longer but did not attract the local populace, excepting the Lepchas especially in the Kalimpong subdivision.

By the late twenties of the present century, social workers of the Nepalese Association, the Bhutia Association, the Lepcha Association and the Gorkha Dukh Nivarak Sammelan went round organizing libraries and literacy centres, the earliest of which

were at Darjiling, Kalimpong and Bijanbari. Most of these were later converted into regular schools receiving financial aid from Government or the District Board (later Zilla Parishad). Among the pioneers in this field of social work, mention may be made of Motichand Pradhan and Chhumbay Tshiring of Kalimpong and J.B. Thapa, H. D. Lama and T. B. Subba of Darjiling.

But a concerted drive for the spread of social education materialized only after the independence of the country when the Social Education Programme of the Government of West Bengal began to be implemented through adult education centres and night schools, managed either by public bodies or by private organizations receiving aid from Government and through social education centres, community centres and folk entertainment units run by the social education wing of the Department of Education. The district libraries, public libraries, library centres, rural libraries, feeder libraries and mobile libraries, managed either by Government or by aided private institutions also played their part in this sphere.

The following table gives figures about the growth of adult education centres and night schools in the district between 1950-51 and 1965-66.

Year	Thana	No. of A.E.C. and Night School	Government expenditure (Rs.)	Average daily attendance at each centre
1950-51	Darjiling	2	2,184	18
	Sukhiapokhri	1		
	Kurseong	1		
	Phansidewa	1		
	Rangli-Rangliot	1		
	Kalimpong	3		
1955-56	Darjiling	2	6,955	21
	Pulbazar	6		
	Rangli-Rangliot	1		
	Jore-Bungalow	1		
	Kurseong	1		
	Mirik	3		
	Siliguri	1		
	Gorubathan	7		
	Kalimpong	12		

Year	Thana	No. of A.E.C. and Night School	Government expenditure (Rs.)	Average daily attendance at each centre
1960-61	Kalimpong	13	8,413	23
	Pulbazar	8		
	Siliguri	1		
	Naksalbari	1		
	Gorubathan	5		
	Rangli-Rangliot	4		
	Sukhiapokri	4		
	Mirik	1		
	Jore-Bungalow	4		
	Darjiling	2		
	Kharibari	1		
1965-66	Pulbazar	7	10,585	25
	Sukhiapokhri	1		
	Rangli-Rangliot	4		
	Mirik	3		
	Kurseong	4		
	Naksaibari	1		
	Siliguri	1		
	Phansidewa	2		
	Kalimpong	12		
	Gorubathan	5		
	Jore-Bungalow	3		
	Darjiling	1		

The first Social Education Centre in the district was opened in 1954; thereafter the spread of these institutions has been as shown in the following statement.

Year	Thana	No. of S.E.C.	Government expenditure (Rs.)	Average attendance at each centre
1955-56	Darjiling	1	17,356	20
	Rangli-Rangliot	12		
	Pulbazar	9		
1960-61	Darjiling	1	26,670	22
	Pulbazar	9		
	Rangli-Rangliot	10		
	Kalimpong	10		
	Jore-Bungalow	6		
	Sukhiapokhri	5		

Year	Thana	No. of S.E.C.	Government expenditure (Rs.)	Average attendance at each centre
1965-66	Pulbazar	10	17,942	26
	Rangli-Rangliot	12		
	Kurseong	10		
	Mirik	9		
	Kalimpong	24		
	Siliguri	10		
	Gorubathan	7		
	Sukhiapokhri	1		
	Jore-Bungalow	5		

Four Community Centres were opened in the district in 1956 at Kagay Basti, Algarah, Gorubathan and Seokbir Basti. The following table gives the latest picture of such centres in the district.

Year	Thana	No. of Commu- nity Centres	Government expenditure (Rs.)	No. of participat- ing persons
1960-61	Kalimpong	4	8,172	22,500
	Gorubathan	1		
1965-66	Kalimpong	4	8,144	38,000
	Gorubathan	1		

In 1961 a folk entertainment unit was placed at the disposal of the District Social Education Officer to provide educative entertainment to rural people and it has helped in the revival of folklore, folk songs, folk dances and folk drama of the Nepali, Bhutia and Lepcha people which were on the verge of extinction. It also collects Nepali, Bhutia and Lepcha folk songs. The unit regularly organizes shows in the district and has also performed at Jalpaiguri, Koch Bihar, Calcutta, Bankura and Kohima. During 1965-66 Rs. 62,000 was spent by the Government to run the unit.¹

¹ The section on Social Education is based on a note received from the District Social Education Officer, Darjiling.

The early schools founded by the Christian missions invariably encouraged sports and athletics which set a standard for later educational institutions to follow. Beyond this world of institutional learning, the first hillmen's sports meet was organized by the Tea Planters' Association in 1885 during the Dussera festival. About the second decade of the present century, the authorities of the Louise Jubilee Sanatorium started holding an annual sports festival coinciding with the Dussera festival in which wrestling and putting the shot became very favourite items. In 1938 a District Organizer of Physical Education was posted in the district to co-ordinate the sports activities of privately managed bodies and educational institutions and to help them with grants-in-aid and proper guidance. From about the same time, sports and athletic associations began to be formed in the district at the instance of the Physical Education wing of the Department of Education and individuals like H.D. Lama and C. Dunne in the Darjiling Sadar subdivision, Arthur R. Foning in Kalimpong subdivision, C. Bloude in Kurseong subdivision and Jagadish Chandra Ghosh in Siliguri subdivision. The Siliguri Sports Association now conducts a football and a cricket tournament and their counterparts in Kalimpong and Kurseong subdivisions have made football and hockey popular in their respective areas. The Darjiling District Athletic Association, the N.N.H.P. Hall Club and the Gorkha Dukh Nivarak Sammelan have also rendered valuable service in promoting various types of sports and physical culture.

In 1958 the Government of West Bengal having considerably enlarged the powers and functions of the District Organizer of Physical Education, changed his designation to District Officer for Physical Education and Youth Welfare and placed larger funds at his disposal for encouraging sports, athletics, physical culture and youth welfare activities. In 1960-61 Government sanctioned a sum of Rs. 1,00,000 for constructing the Darjiling Stadium at Lebong Mineral Spring Tea Estate and in 1965-66 another sum of Rs. 30,000 for the construction of a stadium at Kalimpong.

An Auxiliary Cadet Corps for the military training of boys and girls in High schools was established in the district in 1952 but for lack of participation and excessive expenditure it was withdrawn in April 1966. The National Cadet Corps training in armed services for students of colleges was inaugurated in the district in 1948. Till 1962 N.C.C. training was voluntary for both male and female college students and met with good response. But from 1962-63 it was made compulsory for male college students with provisions for exemption on ground of medical and mental disability. There were four N.C.C. battalions operating in the district in March 1966.¹

¹ The section on Physical Education is based on arepost received from the District Officer of Physical Education and Youth Welfare, Darjiling.

LIBRARIES

In 1943-44 there were only 15 public libraries in the district, most of which were located in the principal towns and these catered to the needs of no more than 2,000 persons.¹ After Independence, the libraries in a district were classified, in relation to their size, area of operation and the kind of aid received from Government, into separate categories, namely, (1) District Library (Government-sponsored or privately managed but receiving grants-in-aid from Government) (2) Subdivisional Library (Government-sponsored or privately-managed but aided by Government), (3) Public Library (Government-managed, Government-sponsored private, Government-aided private, or unaided private), (4) Rural Library (Government-managed, Government sponsored private or Government-aided private), (5) Area Library (Government-sponsored or Government-aided private), (6) Library Centres (Government-sponsored or Government-aided private) and (7) Feeder Library (Government-managed or Government sponsored). All of them are under the overall supervision of the District Social Education Officer.

The Deshabandhu District Library, a privately managed Government-aided institution at Darjiling, one of the oldest of its kind in the district, serves as the District Library. The Bloomfield Subdivisional Library at Kurseong and the Bangiya Sahitya Parishad Subdivisional Library at Siliguri, two privately managed Government-aided old libraries, function as the respective Subdivisional Libraries. The following table shows the number and thanawise distribution of Government-aided privately managed Public Libraries in the district between 1960-61 and 1965-66.

Year	Thana	No. of Govt.-aided Public Libraries	Total No. of books	Average No. of annual issues
1960-61	Siliguri	2	9,574	6,950
	Darjiling	2		
	Kalimpong	1		
1965-66	Darjiling	6	14,685	9,453
	Pulbazar	2		
	Jore-Bungalow	1		
	Rangli-Rangliot	2		
	Sukhiapokhri	1		
	Kurseong	2		
	Kalimpong	2		
	Gorubathan	1		
	Siliguri	1		
	Naksalbari	1		
	Phansidewa	1		

¹ A. J. Dash—*Bengal District Gazetteers ; Darjeeling*. Calcutta 1947 ; p. 279.

The following is a list of Public Libraries in the district (with their respective addresses) as in March 1966.

PARTICULARS OF PUBLIC LIBRARIES IN DARJILING
DISTRICT : MARCH 1966

- | | |
|--|---|
| 1. Sree Hindi Pustakalaya,
Mahabirsthan,
P.O. Siliguri. | 13. Nehru Memorial Club
Library,
P.O. Chathat. |
| 2. Budhasingh Library, Butler's
Court, P.O. Darjiling. | 14. Sayapatri Pustakalaya,
P.O. Kalimpong. |
| 3. Premchand Memorial
Library, Deosidara,
P.O. Mirik. | 15. Gorkha Dukh Nivarak
Sammelan,
P.O. Darjiling. |
| 4. Narbir Pustakalaya,
Puttabong Busty,
P.O. Darjiling. | 16. Nimachal Hindi Bhawan
Pustakalaya,
P.O. Darjiling. |
| 5. Jawahar Pustakalaya,
Gairigaon, Plungdung,
P.O. Sukhiapokhri. | 17. Recreation Blub Library,
Robertson Road,
P.O. Darjiling. |
| 6. Kalyan Sangha, Limbutari,
P.O. Tarbandha. | 18. Lopchu Bazar Public
Library, P.O. Lopchu Bazar |
| 7. Gumbadara Social
Education Library,
P.O. Rimbik Bazar. | 19. Deokota Sangha Public
Library, Ashrampara,
P.O. Siliguri. |
| 8. Lingten Social Education
Library,
P.O. Bijanbari. | 20. Samajik Pustakalaya,
Kalej Valley,
P.O. Deoteriah. |
| 9. Muslim Library
Institute,
P.O. Kurseong. | 21. Unit Library, W.B.N.V.F.
Training Centre,
P.O. Kurseong. |
| 10. Kasiswari Public Library,
Chandmari,
P.O. Darjiling. | 22. Himalaya Kalamandir,
Ladenla Road,
P.O. Darjiling. |
| 11. Gorubathan Youth Club
Library,
P.O. Fagu. | 23. Pally Mangal Sangha
Public Library,
P.O. Rangapani. |
| 12. Tarun Sangha Library,
Plungdung Busty,
P.O. Sukhiapokhri. | 24. Milani Club-cum-
Library,
P.O. Kalimpong. |

**PARTICULARS OF PUBLIC LIBRARIES IN DARJILING
DISTRICT : 1966—concl'd.**

- | | |
|---|---|
| 25. Gorkha Public Library,
Burdwan Road,
P.O. Kurseong. | 30. Uday Gram Sudharak
Pustakalaya, Pandam
Busty, P.O. Darjiling. |
| 26. Srikhola Pustakalaya,
P.O. Rimbik. | 31. Sahayak Sammelan
Pustakalaya, Sidrapong
Power House,
P.O. Darjiling. |
| 27. Kainjalia Youth Library,
P.O. Jhepi. | 32. Lingding Social Library,
P.O. Rangli-Rangliot. |
| 28. Lower Lingding Gram
Library,
P.O. Rangli-Rangliot. | 33. Ashok Pathagar,
Ghomtee,
P.O. Mahanadi. |
| 29. Gandh Smarak Nidhi,
P.O. Kalimpong. | 34. Dilaram Social Education
Library, P.O. Tung. |

There are 6 Area Libraries in the district, 5 of which are in Kalimpong subdivision. The first 5 were established in 1958 and the sixth in 1959. Between them they served 40 villages and had a total collection of 19,357 volumes in March 1966. Following is a list of Area Libraries in the district, as they stood on 31 March 1966.

Name of Area Library & address	Police station
1. Seokbir Area Library, Vill. Seokbir Khani	Kalimpong
2. Gorubathan Area Library, P.O. Fagu	Gorubathan
3. Kagay Area Library, P.O. Kagay Bazar	Kalimpong
4. Nimbong Area Library, P.O. Singi	Kalimpong
5. Algarah Area Library, P.O. Algarah	Kalimpong
6. Mungpoo Area Library, P.O. Mungpoo	Rangli-Rangliot

The following table gives the number and thanawise distributio of Library Centres in the district between 1960-61 and 1965-66.

Year	Police Station	No. of Library Centres	Total No. of books	Average No. of annual issues
1960-61	Darjiling	2		
	Pulbazar	2	1,505	2,010
	Rangli-Rangliot	1		
1965-66	Darjiling	2		
	Kurseong	2	2,765	3,158
	Phansidewa	1		

The following is a list of Feeder Libraries in the district as they stood on 31 March 1966.

PARTICULARS OF FEEDER LIBRARIES IN DARJILING
DISTRICT : MARCH 1966

- | | |
|---|--|
| 1. Labdoh Feeder Library,
P.O. Mungpoo. | 16. Linsoy Feeder Library,
P.O. Kagay Bazar. |
| 2. Sittong Feeder Library P.O.
P.O. Mungpoo, Darjiling. | 17. Ladam Feeder Library,
P.O. Kagay Bazar. |
| 3. Kalijhora Feeder Library,
P.O. Kalijhora. | 18. Chaturbudhi Feeder
Library, P.O. Pedong. |
| 4. Latpancher Feedre Library
P.O. Kalijhora. | 19. Duka Feeder Library,
P.O. Algarah. |
| 5. Tista Feeder Library,
P.O. Tista Bridge. | 20. Pedong Feeder Library,
P.O. Pedong. |
| 6. Tashiding Feeder Library,
P.O. Kalimpong. | 21. Lingsekha Feeder, Library
P.O. Kagay Bazar. |
| 7. Lolay Feeder Library,
P.O. Kalimpong. | 22. Middle Nim Feeder
Library, P.O. Fagu. |
| 8. Ganesh (Bong) Feeder
Library, P.O. Kalimpong. | 23. Pankhasari Feeder
Library, P.O. Fagu. |
| 9. Samalbong Feeder Library,
P.O. Singi. | 24. Samsing Feeder Library,
P.O. Matelli. |
| 10. Pakang Feeder Library,
P.O. Gitdabbling. | 25. Gairibash Feeder Library,
P.O. Matelli. |
| 11. Kaffer Feeder
Library,
P.O. Kalimpong. | 26. Youth Cium-cum-
Feeder Library, Garuba-
Garubathan, P.O. Fagu. |
| 12. Singi Feeder Library,
P.O. Singi. | 27. Chunabhati Feeder Library,
P.O. Bagrakote. |
| 13. Navayuvak Sangha Feeder
Library, Balapchan Busty,
P.O. Kalimpong. | 28. Pokhriabong Feeder
Library,
P.O. Gitdubbling. |
| 14. Sangseer Feeder Library,
P.O. Algarah. | 29. Pembling Feeder Library,
P.O. Singi. |
| 15. Mahankaldara Feeder
Library, P.O. Algarah. | 30. Yamgmakum Feeder
Library, P.O. Kalimpong. |

**PARTICULARS OF FEEDER LIBRARIES IN DARJILING
DISTRICT : MARCH 1966—concl'd.**

- | | |
|---|---|
| 31. Paiyung Gairigaon Feeder Library, P.O. Algarah. | 34. Himbong Feeder Library, P.O. Singi. |
| 32. Sakyong Feeder Library, P.O. Sakyong. | 35. Samthar Feeder Library, P.O. Singi. |
| 33. Sindipong Feeder Library, P.O. Kalimpong. | 36. Pabringtar Feeder Library P.O. Bagrakote. |

At the bottom of the ladder are the Rural Libraries established by the State Government and managed by the Social Education wing of the Department of Education. The following table gives the number and thanawise distribution of Rural Libraries in the district between 1960-61 and 1965-66.

Year	Name of Police Station	No. of Rural Libraries	Total No. of Books	Average No. of Annual issues
1960-61	Mirik	1	846	7,112
	Naksalbari	2		
1965-66	Darjiling	1	15,062	38,478
	Pulbazar	3		
	Sukhiapokhri	1		
	Rangli-Rangliot	2		
	Kurseong	2		
	Mirik	2		
	Kalimpong	1		
	Siliguri	1		
	Naksalbari	2		
	Kharibari	2		
	Phansidewa	2		

For its library programme in Darjiling district, the Social Education wing of the Education Department incurred the following expenditure between 1950-51 and 1965-66.

Year	Expenditure on books and journals (Rs.)	Expenditure on construction and maintenance of buildings and furniture (Rs.)
1950-51	1,30	200
1955-56	6,863	36,194
1960-61	6,600	15,598
1965-66	10,700	3,860

The Bengal Natural History Society was established in 1915 at Darjiling as an autonomous body at the instance of Lord Carmichael, the then Governor of Bengal. Its objects were to promote the study of natural history of North Bengal and the Eastern Himalayas and to run a museum. The latter institution was set up in the same year and is known as the Natural History Museum, Darjiling. It has a representative collection of the fauna of the area it intends to serve which includes specimens of mammals like tiger, bison, several kinds of deer, stag, gaur etc., more than a hundred kinds of birds, about the same number of reptiles and over a thousand species of butterflies, beetles, insects etc. Although the display and storage arrangements are fairly good, the space available in the small building as also the equipments and finances seem to be inadequate. Technical guidance about preservation and restoration of exhibits as also proper classification of the specimens is available from the members of the Society who also advise specialist researchers in their respective fields of study. The museum is run on grants-in-aid received from the State Government, the Darjiling Improvement Fund and the Darjiling Municipality.

MUSEUMS

The Natural
History Museum,
Darjiling

Since 1957 the Society has been running, with financial aid from Government, a course of study called the Nature Education Scheme for school students within the Darjiling municipal area. The students are taken out on field trips and also to an annual camp at some 'games sanctuary' for first-hand study and observation. The Society publishes, since 1926, a bi-annual journal called the 'Journal of the Bengal Natural History Society' which deals mainly with the flora and fauna of Jalpaiguri, Cooch Bihar and Darjiling districts and of Eastern Nepal, Sikkim and Bhutan. The management of the affairs of the Society rests on a largely elective Executive Committee of which the Deputy Commissioner of Darjiling is the *ex-officio* Chairman and the Curator of the Museum the *ex-officio* Secretary.¹

There is a small museum attached to the Himalayan Mountaineering Institute at Jawahar Parvat (formerly Birch Hill) which was set up a few years after the establishment of the Institute in 1954. It exhibits photographs, maps and charts relating to various expeditions in the Himalayas as also the actual equipments used by different expeditions and individual mountaineers like Tenzing Norgay, Nowang Gambu, Lt. Col. N. Kumar and others. Some high altitude climbing gear produced in India, including those manufactured by the Institute itself, as also specimens of flora, fauna and rocks etc. of the Eastern Himalayas are included in the collection. Maps, charts and scale-models of the entire Himalayan mountain system are interesting items of the exhibits on display. Costumes and jewellery used by different sub-Himalayan peoples like the Sherpas, Dukpas and Lepchas are

Himalayan Moun-
taineering Institute
Museum

¹ Source : Secretary-cum-Curator, the Bengal Natural History Society and Natural History Museum, Darjiling.

also there besides a small observatory equipped with a powerful telescope.

**Akshaya Kumar
Maitreya Museum**

The Akshaya Kumar Maitreya Museum is attached to the North Bengal University at Raja Rammohanpur near Siliguri town and houses a small archaeological collection. It was opened in May 1965 with 25 stone sculptures found from different parts of Maldah, West Dinajpur, Jalpaiguri and Koch-Bihar districts, about 15 metal sculptures collected from the same area, some terracotta sculptures recovered from Rajshahi (Bangladesh) and Twenty-four Parganas districts, 20 old coins and about 50 Bengali manuscripts. The stone sculptures are mostly examples of Buddhist and Hindu icons of the Pala and Sena Periods. Some of the terracottas found from Rajshahi and Twenty-four Parganas are from earlier times, presumably Sunga and Gupta. Metal sculptures are related to Pala and Sena art, while some are of folkish origin and of uncertain date. While 6 of the coins bear the names of Maurya and Kushana kings, other coins are either of the Sultanate or the Mughal periods. The manuscripts are of the 18th or the 19th centuries. All the exhibits are donated to the University by Nirmal Chandra Chowdhury of Pandapara within Jalpaiguri town who desired that the museum in which they would be kept should be named after the famous historian Akshaya Kumar Maitreya who founded the Barindra Research Society at Rajshahi, (now in Bangladesh).¹

**The Lloyd Botanic
Gardens, Darjiling**

The Lloyd Botanic Garden is spread over about 40 acres of land in the lower reaches of Darjiling town. It is bounded on the north by Hill Cart Road, the Victoria *ghora* and Victoria Road, on the south by the Jail Road, on the east by the boundary of the Eden Sanatorium and the west by the Victoria Road.

Around 1859-60, Sir Ashley Eden, the then Lt. Governor of Bengal, founded it and a cinchona nursery as a branch in the Himalayas of the Royal Botanic Garden (now Indian Botanic Garden, Sibpur, Howrah) at Rangiroon, near Jalapahar with Dr. T. Anderson as its first Superintendent. During 1864-76 the garden became involved in a controversy with St. Paul's School regarding the ownership of the land it was occupying and had to shift elsewhere. In 1877-78 William Lloyd, an old resident of Darjiling (after whom the garden is named), donated the land it now occupies and in the summer of 1878 it shifted to its present site. The garden was laid out under the supervision of Sir George King, the then Superintendent of the Royal Botanic Garden, Sibpur with the assistance of A. J. Jeffery, lately of the cinchona plantations, who became its Curator. The garden had a museum attached to it but in 1915, it was separated and came to form the

¹ Source : Nirmal Chandra Chowdhury of Pandapara, Jalpaiguri and Pranab Kumar Bhattacharyya, Lecturer-in-charge, Akshaya Kumar Maitreya Museum, North Bengal University.

Natural History Museum. Under the able guidance of Jeffery and other curators like Kennedy and Cave the garden grew into a rich botanical museum of the flora of Sikkim-Himalayas and of exotic species of temperate zones of various countries of the world. Through protracted efforts, a specialized horticultural section also came into being.

The garden is broadly divided into three sections. The upper section contains flora of the Eastern Himalayas while in the lower thrive flora from many temperate countries. The garden has played a pioneering role in introducing such exotic plants in many parts of India. In the John Anderson Rock Garden, named after the then Governor of Bengal and developed in 1936, various kinds of rock and Alpine flora are displayed in simulated surroundings of rocks. The Orchiderium, set up in 1960 and housed in two different conservatories, contain more than 2,500 species and has been doing valuable work in preserving many orchids which were fast becoming extinct. The Student's Section, introduced in 1961 and displaying representative specimens of the Sikkim-Himalayan flora, cater to the needs of students of botany. Medicinal plants are nurtured in another wing, laid out in 1962. Cacti and succulent plants, comprising over 1,000 varieties some of which are extremely rare, are housed in a separate conservatory opened in 1962. The Bulbous Section, started in 1965, contains bulbs, corns and rhizomes of various species of lilies, amaryllis, aroids etc. In the Rosary Section, introduced in 1966, many varieties of roses, some of which are rare, are grown. The Herbarium and Seed Section containing some 30,000 seeds of different species, arranged according to Bentham and Hooker's system of classification, virtually covers the whole range of flora of the Sikkim Himalayas and renders valuable service to students, research workers and scientists. A recently introduced separate Seed Section attached to the Herbarium collects seeds of Sikkim-Himalayas flora and sends them on request to various educational and research institutions in this country and abroad.

In 1967-68 the garden had about 1,800 living botanical species representing Eastern Nepal, Sikkim, Bhutan and Darjiling and exotic flora from the temperate zones of North America, South America, Central America, Europe, Africa, Central Asia, South Asia, China and Japan. Among the important specimens are exotic conifers like *pinus*, *callitris*, *cunninghamia*, *araucaria*, *retinospora*, *cupressus*, *picea*, *cephalotaxus*, *thujopsis* etc. and the living fossil tree (*Metasequoia alvotostroboides*) from China. *Ginko biloba*, another specimen from pre-historic times—contemporaries of which have long been extinct—can also be seen here. *Sterelitzia reginoe* from South Africa, popularly called the 'bird of paradise' for the beauty of its flowers, also grows in the garden. Rare magnolias like *m. stellata*, *m. fuscata*, *m. lilliflora* etc. are also there.

Since September 1965, the garden has come under the State Directorate of Forest with a qualified botanist placed at its head as the Superintending Curator who has under him a trained Horticultural Officer, an Orchid Supervisor and an *entourage* of gardeners and other inferior staff. It is a non-revenue earning institution and is meant primarily for educational and recreational purposes. Besides Government expenses on it, the Darjiling Municipality gives it a recurring grant of Rs. 2,000 *per annum*. In 1960-61 the State Government spent Rs. 23,858 and in 1966-67 Rs. 4,359 for its development which did not include the establishment costs for the respective years.¹

HIMALAYAN ZOOLOGICAL PARK

The Himalayan Zoological Park is a small zoo situated in what was formerly the Birch Hill Park in Darjiling town. Among its attractions the pride of place goes to a pair of Ussuri tigers presented by Nikita Sergeyevitch Khrushchev, ex-Prime Minister of the USSR. There are besides some Himalayan bears, barking deer, spotted deer, llamas and yaks which are kept within fenced enclosures. This small zoo is still in its infancy and is growing.

Himalayan Moun- taineering Institute

The Himalayan Mountaineering Institute approached the Swiss Foundation for Alpine Research for formulating a training programme, which recommended Dzongri, a place about 15,000 ft. above sea-level in Sikkim as the site for field expeditions.

The Institute offers three different courses to students between 18 and 40 years of age. The Basic Course is intended to initiate trainees in the fundamentals of mountain climbing and consists of theoretical and practical classes which last for 35 days, there being five such courses (one exclusively for women) every year. The Advanced Course aims at training the potential leaders and members of major expeditions in advanced techniques of mountain climbing and in basic concepts of glaciology, elementary geology, Himalayan botany and zoology and elementary cartography. This course also lasts for 35 days and five of them (one exclusively for women) are held a year. The Adventure Course of 21 days, meant for boys and girls between 15 and 19 years of age, was introduced in 1964 and is designed to generate among the young trainees a spirit of adventure in a mountainous setting.

The Institute charges around Rs. 400 from each student of the Basic and Advanced courses. Candidates sponsored by the National Cadet Corps are not required to pay any fees; their expenses are borne by the Union or the State Government. The University Grants Commission offers several scholarships and stipends to trainees who are University students.

The Institute library has more than 1,200 volumes on travels, explorations, expeditions in the Himalayas, and geology, geography

¹ Source : Superintending Curator, Lloyd Botanic Garden, Darjiling.

botany and zoology, especially of the Himalayan region. The museum and the observatory attached to the institution have been described earlier. There is a hostel where students have to put up during the duration of their courses. The Principal's quarters, residential quarters for the members of the staff, a guest house and a restaurant also lie within the Institute campus. Being a Government sponsored organization, its expenses are jointly borne by the Ministry of Defence, Government of India and the Ministry of Education, Government of West Bengal.

There is no school or college worth the name in the district imparting training in music, dancing, painting or sculpture according to a regular curriculum and awarding certificates, diplomas or degrees recognized by professional bodies engaged in these arts. Of the private organizations working in the district in these spheres, mention may be made of the Himalaya Kala Mandir, Darjiling (folk music and folk dances of Eastern Himalayas); Mitra Sammelan, Darjiling (music); N. N. H. P. Hall Sangit Sikshayatan, Darjiling (North Indian Classical music and Rabindra Sangeet); 'Sangam', Darjiling (North Indian classical music and folk music of the Eastern Himalayas); Sangit Kala Niketan, Kurseong (North Indian classical, vocal and instrumental music) and Sayapatri Club-cum-Library, Kalimpong (music). Among the voluntary organizations imparting training in painting and artistic crafts, the Art Academy, Darjiling; the Ava Art Gallery, Darjiling; the Craft Teachers' Training Centre, Chitra Bhanu, Darjiling; the Kala Sangha, Kalimpong; the Kalimpong Arts and Crafts, Kalimpong and the Sandhani Mahila Samiti, Kurseong deserve mention.

Institutions for
cultivation of fine
arts

There are several literary associations in the district of which those that are run by Nepalis and given to the cultivation of Nepali language and literature are very active and most of them have journals of their own.

LITERARY
ASSOCIATIONS

The Darjiling Branch of the All-India Arya Samaj at Chowk Bazar, Darjiling was established in 1883. Although it shares the parent organization's zeal for Vedantic Hinduism, its other objective is to promote Nepalese language and culture since its members are mostly Nepalis. Besides running a primary school since 1934 and a primary Night school since 1963, it regularly holds symposia, lectures and seminars on Hindu theology and Nepalese history, culture, language and literature. It publishes a monthly magazine—the *Janadoot*—and has its own press, called the Arya Printing Press.

The Nepali Sahitya Sammelan of Judge Bazar, Darjiling was established in 1924 with the aim of promoting the cultivation of Nepalese language and literature and has published several books with that objective. The Nepali Sahitya Parishad, Darjiling was also established with the same aims and functions similarly. The

Nepali Sahitya Adhyayana Samiti, Kalimpong was established in 1964 to fulfil similar purposes. It publishes a quarterly periodical called the *Hamro Sanket* (previously *Sanket*). The Nepali Isai Sahitya Sangha, Darjiling is devoted to the preaching of Christianity through the medium of the Nepali language. It publishes two journals, namely *Diyo* and *Sangati* and has its own printing establishment called the Jivan Jyoti Press.

Besides functioning as the District Library, the Deshabandhu District Library works as a cultural and literary forum by organizing popular lectures, symposia and seminars. It also publishes periodicals in Bengali and Nepali for the new-literates and translations of Rabindranath Tagore's works in Nepali. The Siliguri Branch of the Bangiya Sahitya Parishad is an organization run by the Bengalis of the town. It maintains a library and arranges popular lectures, seminars and symposia from time to time. The Darjiling branch of the Banga Bhasha Prachar Samity conducts classes in Bengali language for non-Bengalis through the media of Hindi, Nepali and English and awards certificates and diplomas. The Himachal Hindi Bhawan, Darjiling, established in 1931, is engaged in popularizing Hindi language and literature.

Other Culture Associations

The All-India Women's Conference (Darjiling Branch), besides functioning as a social service organization, operates as a cultural and recreational club for women and children by arranging musical and dramatic performances from time to time.

The Anjuman-e-Islamia, Darjiling was founded in 1860 by the Muslim residents of Darjiling (who had come from the plains) with the object of "improving the intellectual, moral, social and material conditions of the Muslims of the district" in accordance with the teachings of Islam. It imparts education, religious or otherwise, to Muslim boys and girls and helps them by awarding stipends for the prosecution of higher studies. The Anjuman established a Junior Madrasah in 1910 and, some time later, a Girls' Maktab in Darjiling town. The Madrasah is now a Government-aided institution while the Maktab gets grants-in-aid from the Darjiling Municipality.

The Bengali Association, Kurseong stemmed from the Kurseong Amateur Club established in 1908 by the local Bengalis. Through the munificence of S. B. Dey and the then Maharajah of Bardhaman the organization got its own building and auditorium in 1930. The latter was named Raj Rajeswari Hall after the name of the wife of S. B. Dey. Subsequently, it set up a Middle English (now Junior High) school and a Primary school where teaching was imparted through the Bengali medium. It awards an annual scholarship of Rs. 15 per month to the Bengali student who secures the highest marks in the First Division from Kurseong town in the Higher Secondary Examination. To promote a bond of cohesion among the local Bengalis—which is its avowed

objective—the Association organizes festivals like the Durga Puja, the Saraswati Puja, Paela Baisakh (Bengali Hindu new-year's day) and dramatic and musical performances in its own auditorium which is let on hire to others and is thus a source of revenue to the Association.

The Deokota Sangha at Asrampara, Siliguri was established in 1963 to commemorate the memory of Lakshmi Prasad Deokota, the famous Nepali writer. It runs a library, a music section and a cultural wing. Since 1967 it is publishing a literary periodical in Nepali called *Barulee*.

The Gayaganga Catholic Church at Gayaganga village (P.O. Kamala Bagan, P. S. Naksalbari) was established in the early thirties of the present century by the Roman Catholic tribals (Oraons, Mundas and Santals) of the Terai who had been recruited from different parts of South Bihar and Western Bengal as tea garden labourers. The church building was completed in 1930 and the hospital, run by the church, in 1934. A Primary school was established in 1941 which became a High school (for tribals) in 1967 and is now the largest of its kind in the district.

The Gorkha Dukh Nivarak Sammelan was founded in 1932 at Darjiling for rendering all manner of social service to the poor Nepalese of the district. One of its avowed objectives is to eradicate illiteracy and promote education and culture-consciousness amongst the educationally backward Nepalese (as also among the Bhutias and the repchas) by setting up free reading rooms and Libraries and organizing various cultural programmes. Since 1933 it has been running a library and a free reading room in its own building at Darjiling. It arranges popular lectures on important topics and stages dramatic performances from time to time. It receives grants-in-aid from the Social Education Wing of the State Department of Education.

The Himalayan Cultural Assembly, Darjiling was established in 1966 as a Platform for exchange of ideas between all social service, cultural, literary, educational and scientific organizations of Darjiling district and Sikkim. It aims to be a cross-communal body for serving all communities in the Darjiling hills and has started sponsoring and holding festivals of local folk dances and folk music etc.

The Indo-Tibet Buddhist Cultural Institute, Kalimpong was established in 1954 by migrant Tibetan Buddhist lamas with the object of propagating traditional Lamaist Buddhist culture so that Tibetan refugees can continue to identify themselves with their mother country. Lama Dhardo Rimpoche, the founder of the Institute, first set up a monastic school but soon re-oriented his approach for serving his community better on the economic plane. He got the school affiliated to the Board of Secondary

Education as a Junior High School, introduced the study of English and Hindi and began to impart secular education through Tibetan and Hindi although monastic education still continued to be imparted in Tibetan. The school, with an attached hostel, has arrangements for vocational education and holds spinning, weaving, type-writing, shorthand, carpentry and shoe-making classes for training refugee Tibetan boys and girls in useful trades.

The Nripendra Narayan Hindu Public Hall, Darjiling, with its library and auditorium, is at the centre of the cultural life of the Bengali Hindus of the town. It sponsors dramatic performances and variety shows from time to time, runs a regular music school and arranges public lectures on Hindu theology and culture.

Shri Ramakrishna Vedanta Ashrama, Darjiling was founded in 1924 by Swami Abhedananda, a disciple of Ramakrishna Paramahansa and a *guru-bhai* (co-initiate) of Swami Vivekananda. It is run as a *devottar* estate under a Board of Trustees. A Free Primary school for boys (which still exists) and an orphanage were started in 1925 to be followed by vocational training classes in carpentry, basket-making and tailoring the next year. In 1931 the Saradamayee Girls' School, and in 1935, the Ramakrishna Bengali Free Primary School were opened for imparting education through the Bengali medium. These were followed by a Pre-Basic Nursery school and Urban Junior Basic school. The Ashrama library has more than 4,000 volumes in Bengali, Hindi, English, Nepali and Tibetan while a number of journals and periodicals are available at the Free Reading Room.

The Kurseong branch of the Ashrama, opened in 1955, has established and runs the Sri Ramakrishna High School for Girls, Sri Ramakrishna Senior Basic School for Girls, Sri Ramakrishna Junior Basic School and Sri Ramakrishna Pre-Basic School, all at Kurseong. The Siliguri branch, started, in 1956, has founded and runs the Margaret (Sister Nivedita) Higher Secondary English School, the Ramakrishna Junior Basic School and the Ramakrishna Pre-Basic Nursery School, all at Siliguri.

All the branches arrange from time to time popular lectures and symposia on Hindu theology, history and culture, social work and problems related to education and organize religious festivals like Durga Puja, Kali Puja, Janmastami, and birth anniversaries of Ramakrishna, Vivekananda, Abhedananda, Sister Nivedita and Saradamayee. The central organization also publishes books and pamphlets in Bengali, Hindi, Nepali and Tibetan.

The Tibetan Refugee Self-Help Centre situated on a spur about mid-way between Darjiling and Lebong was founded in 1955. It runs a High School for Tibetan refugees, a training-cum-production centre where practical training is given in useful trades.

like carpentry, carpet-weaving, tailoring, leather-work etc., a nursery and a creche.

The activities of the several Protestant, Catholic and Anglican mission operating in the district in the fields of education, public health and social services have already been dealt with at their proper places and need not be repeated here.


The following statement¹ gives particulars of public halls and auditoriums in the district in 1966.

PUBLIC HALLS AND AUDITORIUMS IN DARJILING DISTRICT : 1966

Name of Public Hall / Auditorium	Location	Year of establishment	Managed by	No. of seats	Other particulars
Town Hall	Ladenla Road, Darjiling	1917	Proprietors of the Capital Cinema (lessees of Darjiling Municipality) to whom it is leased every 10 years	600	Run as a cinema hall. Meetings also held with consent of management, free of cost.
Nripendra Narayan Hindu Public Hall	J. N. Mitra Road, Darjiling	1890	Board of Trustees N.N.H.P.H.	400	Can be hired on payment of incidental charges.
Gorkha Dukh Nivarak Sammelan Hall	N. C. Goenka Road, Darjiling	1932	Working Committee, G.D.N.S.	600	Can be hired with consent of working Committee.
Kalimpong Town Hall	Near Kalimpong Post Office	1926	Managing Committee with Dy. Commissioner, Darjiling as ex-officio President	250	Can be hired
Raja Rajeswari Hall	Dowhill Road, Kurseong	1931	Bengali Association	350	Can be hired
Mitra Sammelani	Siliguri Town	1909	Executive Committee	350	Can be hired
Arya Samity	Siliguri Town	1949	Executive Committee	700	Can be hired

¹ Source : Deputy Commissioner, Darjiling.

APPENDIX

PERCENTAGE VARIATIONS OF LITERATES (PERSONS, MALES & FEMALES) BETWEEN 1901 & 1931,
1931 & 1961 AND 1951 & 1961 IN DARJILING DISTRICT


Year	Literate persons	% increase	% increase 1901-1961	Literate Males	% increase	% increase 1901-1961	Literate Females	% increase	% increase 1901-1961
1901	17,442	..	..	15,780	..	..	1,662	..	..
1931	34,344	197	..	30,900	196	..	3,444	208	..
1961	1,79,292	522	1,028	1,34,516	435	852	44,776	1,300	2,694
1951	94,021	..	..	..	..	..	..	..	..
1961	1,79,292	191	..	1,34,516	..	..	44,776	..	..

CHAPTER XIII

MEDICAL AND PUBLIC HEALTH SERVICES

Darjiling with its rich herbal store had an ancient system of indigenous treatment practised by the medicine-men and herbalists of the Lepcha, Rajbansi and other communities.

Survey of Public
and Medical Facili-
ties in Early Times

Combined with such herbal medication, there are, even to this day, many superstitious practices and varied rituals among hill people for the treatment of patients. It has been said that a vast field of knowledge on this subject still remains *terra incognita* in the archives of the monasteries scattered all over Sikkim and neighbouring States. "These are the vast storehouses of the charms of the herbals, and, in fact, these hill tribes living peacefully in the far-flung mountain ranges surrounded by the everlasting snows rarely consult even now a modern physician for the treatment of their ailments. Thus the herbals and herbal charms play a great part in the everyday life of the inhabitants of the Sikkim Himalayas even to this day."¹ The same author goes on to say that there is "not much difference in the value of the medicinal herbs and method of treatment used by the people from those mentioned in the *Ayurvedic*, the *Unani*, the *Allopathic* and the *Homoeopathic* literature. . . My searches in the mountains of the Sikkim Himalaya for more than a quarter of a century convince me, too, that the indigenous and some of the introduced and acclimatised plants of these hills are full of potentialities."² With the introduction of modern medicines, however, this traditional system is fast disappearing. "Moreover, due to the inherent secretive nature of these herbalists and medicine-men, the knowledge and use of some of the really efficacious vegetable drugs are dying out with the old veterans and headmen of the villages who are generally superstitious and cherish an inherent belief that if the secrets handed down to them from generation to generation about the wonderful uses of plants are given out to unauthorised persons, the efficacy of the plants will not only be reduced but they might meet with some ill fate on account of the wrath of the presiding deity of the medicinal plants in their forests falling on their heads. It becomes, therefore, extremely difficult to extract authentic information from the hill folk on the use of indigenous plants used in the treatment of various diseases by the hill men."³

It is interesting to note that a large number of local herbs have Lepcha names. The Rajbansis of the *Terai* (including the Siliguri subdivision of Darjiling district) also use many herbs to cure their ailments. C. C. Sanyal, in his book *The Rajbansis of North Bengal* (Calcutta, 1965 ; p. 173), gives a list of herbal medicines still in use amongst them.

¹ K. Biswas—*Common Medicinal Plants of Darjeeling and the Sikkim Himalayas* Calcutta, 1956 ; p. 1.

² *Ibid*, pp. 4-5.

³ *loc. cit.*

"For burns : Crushed unboiled potato is applied on the burnt limb. *Hemkatsa* (Bryophyllum—*Pathorkuchi*) leaves are crushed and applied.

Cough and cold : Turmeric (*curcuma longa*) is tied in a piece of cloth and allowed to hang round the neck with a string. The child's mother should not eat rice at night.

Headache : A green plantain is cut into small pieces, crushed with lime, honey and salt and pasted on the forehead.

Pain in the abdomen : The tuber of a particular grass (*kenna ghas* : *Scirpus kysoor*) is crushed and some juice is extracted. It is mixed with ginger and salt and taken by mouth slightly warmed

Diarrhoea : A kind of small plantain containing many seeds (*Kangur-pir-kela*) is roasted, crushed in water and taken by mouth with a little salt.

Ulcers and wounds : Roots of '*Kesrai ghas*' and '*Bhomra-cita*' are boiled in mustard oil. This oil when applied stops bleeding and dries up the wound. If the ulcer is big, a little green areca is crushed under the teeth and mixed with the boiling oil. Sometimes the entire herbal plants are boiled in mustard oil and applied.

Snake bite : The juice of leaves of *Dulphi* (*Leucas linifolia* S.C.B.¹ *Dandakalas*) is poured into the nostrils."

Apart from the use of medicinal herbs, magical rites are performed and various charms applied to cure diseases. The traditional priest (*Bonthing*) and the priestess (*Mon*) of the Lepchas are supposed to exorcize evil spirits responsible for causing diseases. Talismans and amulet-charms are worn, as in the past, to guard against or to cure maladies. In the Terai area sanctified water, charmed oil are still used and incantations uttered to cure ailments.

The British Period

In the early British period the greatest mortality was caused by various types of fevers, especially in the Terai region. O'Malley said in 1907 that The Terai has an evil reputation for the severity of its fevers, which might be divided into malarial fevers, including black-water fever, and *kala azar*. The malignant type of fever is especially frequent in certain localities, such as Sukna, Garidhura Matigara and Naksalbari, owing to their marshy situation and to the fact that they were cramped and crowded, and had no room for expansion. It is, indeed, a common saying among the Nepalese in these parts that any child born to them will not live to reach the age of two years. Regarding diseases common in

¹ S.C.B.—Standard Col quial Bengali.

the hill areas diarrhoea was one of the commonest diseases among Europeans in the hills, especially among those who have just arrived from the plains.

Among the hill people intestinal worms, producing symptoms of diarrhoea, were extraordinarily common: in 1905 no less than 3,470 such cases were treated at the Darjiling dispensary. Phthisis was also not uncommon among the natives, owing to their thin clothing, their constant exposure to cold, damp and heat, and to their disregard of elementary hygienic laws. Darjiling with its cold damp climate bore an unfavourable reputation for the treatment of consumption or pulmonary affections. O'Malley also noted the frequency of goitre and deaf-mutism and mentioned that diphtheria and enteric diseases were sporadic at that time while influenza visited the district only occasionally. Rheumatism was common during the rains but plague was very rare.

Regular medical institutions started functioning in the district towards the end of the nineteenth century through the assistance of Government and of private individuals. In the town of Darjiling there are three medical institutions—the Eden Sanitarium for Europeans, the Lowis Jubilee Sanitarium for natives, and the Victoria Memorial Dispensary for natives and Europeans.

In the interior of the district there are charitable dispensaries at Kurseong, Kalimpong, Pankhabari and at Pedong. In the Terai there are dispensaries at Siliguri, Baghdogra, Kharibari, Naksalbari, Phansidewa and Sombari Hat.

The medical organization of Government is admirably supplemented by the Church of Scotland Mission. At Kalimpong there is a hospital, the Charteris Hospital, aided by the State, but maintained and managed by the Mission which contains 26 beds. The same Mission also maintains a dispensary at Nimbong in the Kalimpong subdivision. There is also a small independent medical mission at Sukhiapokhri close to the Nepalese border.

Traditionally, the district comprises two regions—the Terai with its poor health conditions and the hills with a bracing climate. The Terai, even until the beginning of the present century, was "a low malarious belt skirting the base of the Himalayas...which nature has marked out as the home of fever."¹ In the hills, on the other hand, "the damp moist heat of the Terai disappears at the elevation of 2,500 feet and above that level the tropical zone of fever is past."² In the sub-Himalayan tract reeking moisture and rank vegetation, the average mortality was nearly 60 per

Vital Statistics

¹ *Ibid.*, pp. 53-4.

² *loc. cit.*

thousand in the ten years ending in 1900, while it exceeded 71 per mille in that year. On the other hand, the average birth-rate in the same decade was only 19.4 per annum. In 1905, the death-rate was 57.70 per thousand and the average over the previous five years was 60 per thousand. Conditions are very different now. In the Terai, the malarial and other types of fevers have been sufficiently controlled through systematic anti-malaria campaign and bowel-complaints, the scourge of the hill areas, have been largely checked through modern arrangements for supply of filtered water.

While total demographic mobility in a given area is governed both by internal and external factors, birth and death-rates can be more precisely attributed to internal factors alone. The following decennial table gives the figures of births and deaths as also their rates per thousand for the district for the period from 1941 to 1961.

DECENNIAL TABLE OF BIRTH AND DEATH-RATES IN DARJILING
DISTRICT : 1941-61

Year	Births	Birth-rate per 1,000	Deaths	Death-rate per 1,000
1941	11,329	30.0	10,717	28.4
1951	11,237	25.2	8,296	18.6
1961	11,059	17.6	3,427	5.4

From the above table it will be seen at once that birth and death rates in 1941 moved close together while there was a progressive and very significant gap between them in 1951 and 1961. It will also be noticed that while the birth rate came down at a slower pace the decrease in the death rate was very pronounced, presumably due to better health and sanitation measures.

The table¹ below gives birth and death rates obtaining in the urban and rural areas of the district in recent years.

Year	Births			Deaths		
	Urban	Rural	Rate per thousand (on total)	Urban	Rural	Rate per thousand (on total)
1961	2,892	8,167	17.6	679	2,748	5.4
1962	4,401	7,964	19.1	1,161	3,178	6.7
1963	3,541	7,971	17.4	1,036	3,942	7.5
1964	3,977	6,574	15.4	1,008	2,962	5.8
1965	3,891	5,037	12.8	1,428	2,092	5.1

It would be evident from the foregoing table that birth rates in both urban and rural areas have been going down of late while death rates are increasing in urban and decreasing in rural areas.

The table² below shows birth and death rates among the males and the females of the district in recent years.

MALE-FEMALE BIRTH AND DEATH RATES FOR
DARJILING DISTRICT : 1961-5

Year	Births				Deaths			
	Male	Female	Rate per thousand (on total)		Male	Female	Rate per thousand (on total)	
1961	5,788	5,271	9.2	8.4	1,861	1,566	5.5	5.4
1962	6,278	6,087	9.7	9.4	2,225	2,114	6.4	7.1
1963	6,038	5,474	9.1	8.3	2,610	2,368	7.3	7.7
1964	5,390	5,061	7.9	7.5	2,085	1,885	5.7	6.0
1965	4,551	4,377	6.5	6.3	1,945	1,575	5.2	4.9

The preceding figures tend to prove that female birth rates during the five years under review have always been lower than male birth rates, while female death rates, except in 1961 and 1965, have always been greater than male death rates.

1.2 Directorate of Health Services, Government of West Bengal—*Annual Reports on the State of Health of West Bengal (Part I)*, 1961, 1962, 1963, 1964 and 1965.

Infant mortality

In Darjiling, as elsewhere, children constitute the largest single component of the total population as will be evident from the following table classifying the 1961 population of the district (6,24,640) under various age-groups.

**DISTRIBUTION OF POPULATION OF DARJILING DISTRICT
ACCORDING TO AGE-GROUPS**

Age-groups (years)	No.
0-4	93,565
5-9	92,636
10-14	73,820
15-19	56,238
20-24	59,852
25-29	58,452
30-34	44,699
35-39	35,035
40-44	29,685
45-49	22,090
50-54	20,751
55-59	11,655
60 plus	26,162

Because of their physical immaturity and large numbers, children are more prone to disease and death than those in the

higher age-groups. The following table¹ brings out the relative proportions between total deaths and infant mortality in the district for the 1951-60 decade.

INFANT MORTALITY IN DARJILING DISTRICT : 1951-60

Year	Total deaths	Infant deaths	Infant death rate per thousand
1951	8,296	1,088	96.82
1952	6,960	1,114	93.91
1953	6,698	1,076	97.13
1954	6,550	1,078	97.80
1955	5,752	880	69.97
1956	5,057	769	63.45
1957	5,095	886	72.19
1958	5,256	1,010	79.74
1959	4,739	729	61.38
1960	5,060	785	63.41

The following table gives intrinsic numbers as also death rates of infants in urban and rural areas of the district between 1961 and 1965 making it apparent at once that the incidence is much heavier on the rural than on the urban areas.

INFANT MORTALITY IN DARJILING DISTRICT : 1961-65

Year	Infant deaths			Rate per 1,000 live births		
	Urban	Rural	Total	Urban	Rural	Total
1961	78	415	493	27.0	50.8	44.6
1962	141	499	640	32.0	79.5	51.8
1963	124	473	597	35.0	59.3	51.9
1964	126	386	512	31.7	59.6	49.0
1965	178	216	394	45.7	42.9	44.1

¹ J. Datta Gupta & P. G. Choudhury—Census of India, 1960, Vol. XVI, West Bengal & Sikkim, part I-B: Report on Vital Statistics, Delhi, 1967, pp. 67-9.

Deaths from
selected causes

Mortality trends can also be analyzed by studying the causes of death. The following table¹ sets forth the actual number of deaths in the district and their rates per thousand (according to the population of 1961) during 1961, 1962, 1963, 1964 and 1965.

DEATHS FROM SELECTED CAUSES IN DARJILING DISTRICT :
1961-65

	1962		1963		1964		1965	
	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate
Accidents	69	0.1	90	0.01	81	0.01	76	0.1
Anaemias	70	0.1	91	0.1	48	—	68	0.1
Child birth	61	4.8	70	5.9	68	6.4	31	3.4
Cholera	4	0.01	19	0.03	—	—	7	0.01
Diabetes	3	—	8	0.01	16	—	4	—
Dysentery	199	0.3	302	0.5	198	0.03	242	0.4
Early infancy diseases	258	0.4	200	0.3	155	0.02	169	0.2
Gastritis	83	0.1	111	0.2	98	0.01	72	0.1
Influenza	55	0.09	30	0.05	29	—	21	0.03
Kala-azar	—	—	—	—	—	—	—	—
Leprosy	9	0.01	11	0.02	14	—	1	—
Malaria	46	0.07	23	0.03	11	—	6	—
Malignant Neoplasm	17	0.03	33	0.05	37	—	38	0.05
Metabolic nutritional diseases	107	0.2	174	0.3	142	0.02	136	0.2
Pneumonia	301	0.5	383	0.6	236	0.03	201	0.3
Pulmonary T.B.	102	0.2	137	0.2	99	0.01	106	0.2
Respiratory T.B.	235	0.4	212	0.3	206	0.3	220	0.3
Senility etc.	2,321	3.6	2,538	3.8	2,060	0.3	1,687	2.4
Small pox	—	—	7	0.01	—	—	—	—
Suicide	11	0.02	14	0.02	11	—	12	0.02
T.B. of meninges	2	—	5	0.01	9	—	3	—
Typhoid	11	0.02	14	0.02	12	—	14	0.02

¹ Directorate of Health Services, Government of West Bengal—*Annual Reports on the State of Health of West Bengal (Part I)* 1961, 1962, 1963, 1964 & 1965.

It would appear from the foregoing table that diseases claiming the largest number of victims are senility etc., T.B. of different kinds, pneumonia, metabolic and nutritional diseases, dysentery, and ailments peculiar to children. Tuberculosis is caused by general malnutrition and the hazards of a hill climate. Dysentery is similarly attributable to insanitation and drinking of unhygienic water. Deaths from kala-azar and malaria, one-time scourges of the district, are, happily, negligible at present.

Although reporting of births and deaths is obligatory under the Bengal Births and Deaths Registration Act, 1873, its operation has long been perfunctory. The position obtaining in 1947 was as follows : "In municipal areas births and deaths are recorded in the Municipal offices of Darjiling and Kurseong. In rural areas, officers in charge of police-stations are the registering officers. The only exceptions are the Siliguri Union Board where the President records and the Cantonments of Lebong and Jalapahar where the Executive Officers record. Information is collected by managers on tea gardens, by rangers for forest villages, by the tehsildars in Darjiling Improvement Fund hats and by road khalasis for roadside lands. Outside these areas, in the hills village mandals collect the information and in the Terai village chaukidars. Monthly returns are supplied by registering officers to the District Health Officer and transmitted by him to the Director of Public Health."¹ There was hardly any improvement in the system of collection of vital statistics in the district even in June 1966 as would be evident from the following extract taken from the *Report on the Pilot Survey on the extent of under-registration of Vital Events in West Bengal* prepared by the Superintendent of Census Operations, West Bengal and Sikkim. "In only two districts, i.e., Darjiling and Purulia, the police authorities are still in charge of the registration of births and deaths. ...While steps are being taken to improve the registration system, it will take much time before complete registration of births and deaths is achieved. In the mean time we have to use the incomplete statistics based on partial registration of vital events for all they are worth."²

Compilation of
vital statistics

With a view to strengthening the compilation machinery a scheme was taken up in January 1959 for setting up Model Health and Ideal Registration Units in selected unions of districts where Health Centres were functioning for recording of vital statistics by the teaching medical institutions and conducting half-yearly censuses of births and deaths in selected urban and rural areas. Two such units started functioning at Matigara and Baghdogra unions in 1959 but had to be shifted elsewhere due to the exigencies of the Chinese aggression. Regarding the Pilot Survey conducted

¹ A. J. Dash—*Bengal District Gazetteers : Darjeeling* ; Calcutta, 1947 ; p. 92.

² J. Datta Gupta & P. G. Choudhury—*op. cit.*, p. 201.

in June 1966, the relevant report states : "There was however one section of the population which viewed the survey with great alarm. They were the village Chowkidars. That a work which they had so long supposed to be a mere formality to be done at will and leisure could be subject to so severe scrutiny caused much of a flutter among their fraternity. This is the one salutary result that the survey has achieved, if not anything else."¹

Diseases common
to the district

The table, given in the Appendix to this chapter, compiled from official statistics,² gives the number of outdoor and indoor patients treated in various hospitals of the district recognized by the Government and the respective mortality figures. The number of patients surveyed is obviously smaller than that in the whole district, many of whom might have undergone treatment privately or at other medical centres. But the figures, based on a large population, may be taken as fairly indicative of the diseases common to the district and their incidence on its populace.

It would appear from that table that complications of pregnancy and childbirth as also chronic bronchitis, fractures and head injuries are the leading causes of admissions into hospitals, while diseases of the circulatory system and complications of pregnancy and childbirth are the worst killers. Yet maladies like malaria tuberculosis, dysentery etc. call for special attention because of their past and present history. In 1960, 6,692 tuberculin tests were made and B.C.G. vaccination given in 1,393 cases.

Malaria

Malaria was a scourge of the district in the early years of this century. But the use of quinine and the spraying of D.D.T. have arrested its virulence as would be evident from the following table³ giving mortality figures in respect of Darjiling and Siliguri towns (the former in the hills and the latter in the Terai) between 1951 and 1958.

DEATHS FROM MALARIA IN DARJILING AND SILIGURI TOWNS :
1951-58

Year	No. of deaths in		Year	No. of deaths in	
	Darjiling	Siliguri		Darjiling	Siliguri
1951	10	42	1955	2	3
1952	20	18	1956	1	5
1953	15	24	1957	2	1
1954	2	13	1958	—	—

¹ *ibid.*, p. 207.

² Directorate of Health Services, Government of West Bengal : *Annual Reports on the State of Health of West Bengal (Part-II)*, 1961, 1962, 1963 and 1964.

³ J. Datta Gupta & P. G. Choudhury—*op. cit.*, p. 59.

The following table¹ gives a male-female break-up of deaths in the district from malaria between 1951 and 1960 which shows a declining incidence of the disease on both the sexes.

MALE-FEMALE DEATHS FROM MALARIA IN DARJILING
DISTRICT : 1951-60

Year	No. of deaths		Year	No. of deaths	
	Male	Female		Male	Female
1951	614	560	1956	220	159
1952	559	360	1957	109	74
1953	475	384	1958	169	128
1954	375	294	1959	103	101
1955	286	235	1960	50	49

That the disease is more prevalent in rural areas is evident from the following table.

DEATHS FROM MALARIA IN RURAL AND URBAN AREAS
OF DARJILING DISTRICT : 1961-65

Year	1961	1962	1963	1964	1965
	Male	Female	Year	Male	Female
Rural	22	35	19	6	4
Urban	6	11	4	5	2

Steps have been taken for eradication of malaria; for example, 100 per cent D.D.T. was sprayed in 1963 to the extent of 39,158 lbs.

The following table indicates sexwise mortality in the district from enteric group of diseases (consisting of diarrhoea, dysentery and worms) between 1951 and 1960.

Enteric group of
diseases

MALE-FEMALE DEATHS FROM ENTERIC GROUP OF DISEASES
IN DARJILING DISTRICT : 1951-60

Year	No. of deaths		Year	No. of deaths	
	Male	Female		Male	Female
1951	344	323	1956	242	222
1952	240	249	1957	201	177
1953	264	217	1958	207	171
1954	217	181	1959	96	76
1955	284	233	1960	134	104

It is worthy of notice that the decrease in the number of deaths has been very slow over the years and that the fatality among females has been somewhat less than that among males.

¹ *ibid.*, p. 43.

The following table gives the rural-urban break-up of the number of deaths from dysentery of all forms from which it will appear that its incidence is mainly in the rural areas.

DEATHS FROM DYSENTERY OF ALL FORMS IN DARJILING
DISTRICT : 1961-65

Year	1961	1962	1963	1964	1965
Rural	100	173	271	172	163
Urban	14	26	31	26	79

Tuberculosis

Tuberculosis of various types have always been a leading disease of the district owing to the climatic hazards.

That the incidence of the disease is more in the hills than in the plains is evident from the following table which gives comparative mortality figures for Darjiling town and Siliguri.

DEATHS FROM T.B. OF LUNGS IN DARJILING TOWN AND
SILIGURI : 1951-58

Year	No. of deaths		Year	No. of deaths	
	Male Darjiling	Female Siliguri		Male Darjiling	Female Siliguri
1951	40	5	1955	25	11
1952	31	7	1956	8	8
1953	35	4	1957	18	14
1954	28	3	1958	15	13

The following table gives a sexwise break-up of deaths from T.B. of lungs between 1951 and 1960.

MALE-FEMALE DEATHS FROM T.B. OF LUNGS IN DARJILING
DISTRICT : 1951-60

Year	No. of deaths		Year	No. of deaths	
	Male	Female		Male	Female
1951	213	156	1956	159	110
1952	190	158	1957	159	127
1953	197	147	1958	166	136
1954	163	156	1959	149	87
1955	1,954	100	1960	81	70

It would appear from the foregoing table that an appreciable fall in mortality occurred only in 1960 and that the incidence of the disease was less among females than among males.

The following table gives the rural-urban break-up of tubercular mortality in this district in recent years.

Year	Pulmonary T.B. without mention of occupational diseases of lung		T.B. of respiratory system other than pulmonary without mention of occupational diseases of lung		T.B. of meninges and central nervous systems	T.B. of bones and joints, active or unspecified	T.B. of other forms	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
1961	48	12	155	27	—	—	—	—
1962	44	58	186	49	—	2	1	—
1963	88	49	179	33	—	5	—	1
1964	57	42	179	37	—	9	—	11
1965	35	71	151	69	—	3	1	1

These figures show that while the incidence of pulmonary T.B. is more or less evenly distributed in the rural and urban areas of the district, T.B. of the respiratory system is much more prevalent in the countryside.

There is a travelling eye dispensary which treated 1,359 cases in 1960. There were 16 school health clinics in 1960 which examined 2,813 students and declared 10 per cent of them as defective.

Medical facilities enjoyed by the people of the district have always been relatively greater than those available in other districts of West Bengal (except Calcutta), mainly because a number of hospitals and dispensaries run by different religious missions, municipalities and private organizations have long been functioning here. These are now supplemented by hospitals, dispensaries and clinics set up by the State Government according to the usual pattern obtaining in other districts as also by departmental hospitals attached to railways, jails, police organizations etc.

Public Hospitals
and Dispensaries

The following table¹ indicates the number of medical institutions in the district, the total number of beds available in them as also the ratio of beds per thousand persons during 1963 and 1964.

MEDICAL INSTITUTIONS WITH BEDS IN DARJILING DISTRICT :
1960-64

Year	Beds				Beds per 1,000 population			
	No. of insti- tutions	Total	Mater- nity	T.B.	Total			
					Darjiling district	West Bengal	Mater- nity	T.B.
1963	95	1,391	145	390	21.0	0.82	2.2	5.9
1964	84	1,423	145	362	20.9	0.86	2.1	5.3

The following table² shows the distribution of doctors and nurses in the hospitals and dispensaries of the district during 1963-64.

DISTRIBUTION OF DOCTORS AND NURSES IN HOSPITALS AND
DISPENSARIES OF DARJILING DISTRICT : 1963-64

Year	Medical graduates	Medical officers	Nurses		No. of beds per	
			Trained	Un-trained	Doctor	Nurse
1963	48	53	149	119	13.8	5.2
1964	45	53	119	153	14.5	5.2

Apart from the staff mentioned in the foregoing table, there were 68 Compounders, 12 Midwives, 16 Dais, 27 Health Assistants, 13 Lady Health Visitors and Public Health Nurses and 13 technical hands in the hospitals and dispensaries of the district in 1964.

Public Hospitals

The Bhore Committee had initially recommended the setting up of Primary Health Centres with 75 beds each for every 20,000 people, but paucity of funds and trained personnel resulted in its suggesting the opening of such Centres with only 2 beds for maternity and 2 for emergency cases for every 40,000 people. In partial modification of this suggestion, the Government of West Bengal started setting up Health Centres from 1948 with 4 to 10 indoor beds for serving an area covered by a Union Board (approximately the same area now covered by an Panchayat Samity).

¹ Directorate of Health Services, Government of West Bengal—*Annual Reports on the State of Health of West Bengal (Part II) 1963-4.*

² *ibid.*

Such Union Health Centres within each police station were to be affiliated to the Thana Health Centres having a minimum of 20 beds and a maximum of 50 beds. All Health Centres in a subdivision were, again, to be affiliated to the Subdivisional Hospital having 68 indoor beds each. The conditions for the establishment of a Union Health Centre were that the local people should donate 6 *bighas* of land and an adequate amount of cash while for a Thana Health Centre 20 *bighas* of land plus a cash amount. The scheme continued till 1955 when, at the instance of the Government of India, it was decided to have Primary Health Centres with 10 beds at the headquarters of every Community Development Block along with 2 or 3 Subsidiary Health Centres at suitable places within each Block area with only 2 non-dieted emergency beds.

The following table (including P.H.Cs denoting Public Health Centres and S.H.Cs denoting Subsidiary Health Centres) gives details of public hospitals functioning in the district in 1967.

PUBLIC HOSPITALS IN DARJILING DISTRICT : 1967

Name	Police Station	No. of beds
Victoria Hospital	Darjiling	208
Kurseong Subdivisional Hospital	Kurseong	30
Siliguri Subdivisional Hospital	Siliguri	136
Deshbandhu Chest Clinic	Kalimpong	—
Darjiling T.B. Hospital	Darjiling	30
Sukhiapokhri P.H.C.	Sukhiapokhri	20
Takdah P.H.C.	Rangli Rangliot	20
Pedong P.H.C.	Kalimpong	20
Naksalbari P.H.C.	Naksalbari	20
Sukna P.H.C.	Siliguri	10
Gorubathan P.H.C.	Gorubathan	10
Mirik P.H.C.	Mirik	10
Bijanbari P.H.C.	Pulbazar	10
Matigara S.H.C.	Siliguri	10
Bagdogra S.H.C.	Siliguri	10
Kharibari S.H.C.	Kharibari	10
Rangali S.H.C.	Kharibari	2 (non-dieted)
Jaldhaka S.H.C.	Gorubathan	„
Bagora S.H.C.	Siliguri	„
Samthar Samalbong S.H.C.	Kalimpong	„
Sittong S.H.C.	Kurseong	„
Gitdubling S.H.C.	Kalimpong	„
Takling S.H.C.	Rangli Rangliot	„
Lodhama S.H.C.	Pulbazar	„
Singrimtam S.H.C.	Rangli Rangliot	„

The following Government dispensaries, which formerly belonged to the District Board, functioned in the district in 1967 under the immediate supervision of the District Health Officer.

**GOVERNMENT DISPENSARIES IN DARJILING
DISTRICT : 1967**

Name	Police Station
Singla R.H.C.*	Darjiling
Batasi R.H.C.*	Kharibari
Algarah R.H.C.*	Kalimpong
Phansidewa R.H.C.*	Phansidewa
Ambari T.C. +	Phansidewa
Tarbandha T.C. +	Phansidewa
Ranidanga T.C. +	Siliguri
Tista Bridge Dispensary Mobile Medical Unit, Chaterhat	Kalimpong

*Rural Health Circle

+ Treatment Centre

Departmental
hospitals

Apart from the Government hospitals and dispensaries spread throughout the district, the following hospitals cater exclusively to the needs of various Government departments : Jail Hospital, Darjiling (12 beds) ; Jail Hospital, Siliguri (8 beds) ; Kadamtala Police Hospital, Matigara (50 beds) ; Cinchona Plantation Hospital, Mangpu (16 beds) ; Cinchona Plantation Hospital, Munsong (8 beds) ; Medicinal Plantation Hospital, Rongo (11 beds) ; Dowhill Central Hospital, Dowhill (40 beds) for the local Government school ; Tindharia Railway Hospital (16 beds) ; Siliguri Railway Hospital (38 beds) ; Military Hospital, Lebong etc.

There is also a number of departmental dispensaries in the district, namely, the Cinchona Plantation Dispensary, Latpanchor ; Kalijhora P.W.D. Dispensary, Kalijhora ; Dowhill Forest Dispensary, Dowhill ; Labour Welfare Centres at Sonada, Lebong and Mahanadi ; a Mobile V.D. Unit at Siliguri ; Military Dispensary at Katapahar etc.

The following table¹ would give an idea of the enormous number of patients, both outdoor and indoor, treated in the hospitals and dispensaries of the district during 1961-64.

PATIENTS TREATED IN HOSPITALS AND DISPENSARIES
OF DARJILING DISTRICT : 1961-64

Year	Outdoor			Indoor			
	Total (old & new)	Total (new)	Per- centage of new cases to total (old & new)	Total treated No.	Ratio in per- centage	Total deaths No.	Fatality ratio in per- centage
1961	4,25,021	2,52,379	59.4	3,399*	18.4+	548	3.7
1962	5,04,622	2,95,325	58.5	16,501*	17.2+	616	3.7
1963	5,33,134	2,99,292	56.1	16,995	14.8+	820	4.8
1964	6,14,831	3,83,117	62.3	16,265	17.8	701	4.3

* 20% sample
+ patients per bed

The following table² gives an idea of the very large number of patients treated in different Government Health Centres of the district.

PATIENTS TREATED IN HEALTH CENTRES OF DARJILING :
1961-64

Year	Outdoor			Indoor			
	Total (old & new)	Total (new)	Per- centage of new ca- ses to total	Total new cases	Turn- over per bed	Deaths	Case fatality ratio in per- centage
1961	1,49,027	1,06,255	71.3	688	35.6	128	10.1
1962	1,72,795	1,04,495	60.5	3,040	19.0	78	2.6
1963	2,16,852	1,25,364	57.8	3,044	19.0	118	3.9
1964	2,05,280	1,10,765	54.0	2,604	17.6	96	3.7

Medical administration

The Chief Medical Officer of Health is now in overall charge of medical and public health administration of the district. Formerly, the functions of the Civil Surgeon were limited only to the curative side of public health, its preventive aspects being entrusted, under Bengal Act III of 1885, to the District and Local Boards. In Darjiling district attempts were made as early as in 1922 to combine the curative with the preventive sides and it has been said that "from 1922 to 1932 responsibility for public health in the District was with the District Board...and the Civil Surgeon controlled public health as well as medical organisations. Proposals for appointing a District Health Officer and a District Public Health Organisation on the model accepted for other Districts in the Province were forwarded to Government in 1930 and resulted in 1932 in the appointment of a District Health Officer who was first to study the peculiar health problems of the District and thereafter to make proposals. The resultant proposals to combine medical and public health activities were accepted but the need for revision in certain details, an alternation in the department's policy and constitutional changes delayed introduction of a scheme until September 1942."¹ Formerly, a District Health Officer and four Sanitary Inspectors under the District Board used to supervise public health work of the district but "the Rural Health Scheme adopted in 1942 covered the greater part of the District with 15 Health units, each in charge of a Rural Health Officer under whom is a Health Assistant and one other officer. Supervision is by the District Health Officer, two Assistant Health Officers and four Sanitary Assistants. In addition a travelling Sub-Assistant Surgeon in the Terai visits *hats* and other centres. The above units were established but all could not continue to function in war time owing to lack of qualified personnel. They average 54 square miles in area and the Rural Health Officer in charge is responsible for all the health measures required in his area and for an outdoor dispensary at his headquarters which he is expected to attend at least three hours daily for six days in the week. His duties include lecturing to the rural population on sanitation, verification of births and deaths, teaching in schools, inspection of markets and the combating of epidemics by preventive and remedial action. The operations against Kala-azar which had been started in 1938 were also taken over by these units."² Previously, the Rural Medical Officer of Health used to look after both curative and preventive aspects of health work within his jurisdiction. There was also a Vaccinator for each thana.³ Since provincialization of the public health scheme from 1 January 1959, all medical and ancillary staff working on public health schemes under the District Board have been taken over by the Health Directorate and placed under the direct control of the Chief

¹ A. J. Dash—*Bengal District Gazetteers : Darjeeling* ; Calcutta, 1947 pp. 90-1.

² *ibid.*, p. 91.

³ Source : Chief Medical Officer of Health, Darjiling.

Medical Officer of Health. The rural health units have either been converted into new Health Centres or merged with those already functioning near by. In Darjiling, Kurseong, Kalimpong and Siliguri towns, public health activities are the responsibility of the respective municipalities. After the amalgamation of medical and public health activities since 1 January 1959, the Civil Surgeon, now designated as Chief Medical Officer of Health has become the administrative head of both preventive and curative aspects of health services in the district. He has now under him two key officers in immediate charge of the two branches—the District Medical Officer (who is also the Superintendent of the district hospital) looking after the curative and the District Health Officer, supervising the preventive aspects of public health. On the curative side, the C.M.O.H. is further assisted by an Assistant C.M.O.H., the Subdivisional Medical Officer and Medical Officers in charge of Primary Health Centres and Subsidiary Health Centres. On the public health side, the C.M.O.H. is similarly helped by the Subdivisional Health Officers and Sanitary Inspectors. The District Health Officer looks after public health and sanitation of the district and issues licences to hotels and restaurants in non-municipal areas; smallpox vaccination and cholera inoculation are also his charge. The family planning organization headed by the District Family Planning Officer is also under the control of the C.M.O.H. While the work of this unit in the urban areas is directed by the District Family Planning Officer, family planning programmes in the Block areas are looked after by the Medical Officers of the Primary Health Centres or the Subsidiary Health Centres as the case may be. The Primary and Subsidiary Health Centres also serve as decentralized units for supervising medical care and public health in the countryside. There is another set-up under the C.M.O.H. called the School Health Unit manned by a Medical Officer coordinating the activities of the Medical Officers of Health Centres who are entrusted with the task of examining the health of school children.

The number of Allopathic, Homoeopathic and *Ayurvedic* physicians practising in the district according to the Census of 1961 and their rural-urban break-up have been given elsewhere.

The following is a list¹ of private hospitals in the district.

Private Hospitals
and Nursing homes

Name of hospital	Police Station	No. of beds
Charteris Hospital	Kalimpong	350
Steel Memorial Hospital	Kalimpong	60
Bhogivita Mission Hospital	Phansidewa	14
S. B. Dey Sanatorium	Kurseong	294

¹ Source : Chief Medical Officer of Health, Darjiling.

Charteris Hospital,
Kalimpong

"The Charteris Hospital was opened in 1893 and has been maintained ever since by the Church of Scotland Mission. The Mission's medical work in this area, which includes this hospital, a Leper Hospital in Kalimpong, a dispensary in the Kalimpong bazar and out dispensaries at Nimbong and Today Tangta, is controlled by its Kalimpong District Committee. It is a general hospital for men, women and children.

"The hospital trains Nepali, Lepcha and Tibetan girls in general nursing and midwifery and prepares them for the examination of the Bengal Nursing Council. Boys are trained in compounding and dispensing. The Church of Scotland Mission finances the hospital aided by grants from Government. Government also provides free, the services of the two Sub-Assistant Surgeons.

"The hospital...includes 110 beds for lepers. The staff consists of two British doctors and two Indian doctors (who are Government servants attached to the hospital), a matron and a sister (both British), an Indian sister and six staff nurses, 22 nurses in training housed in two Nurses' Homes, 2 compounders and 2 dressers and 1 X-ray machine belonging to the local Tuberculosis Association.

S. B. Dey
Sanatorium,
Kurseong

Opened as an auxiliary to the Jadavpur Tuberculosis Hospital, Calcutta with 20 beds on 14 April 1937 and run by the governing body of the Calcutta Medical Aid & Research Society, the S. B. Dey Sanatorium came into existence mainly through the efforts of Dr. Kumud Sankar Ray supplemented amply by the munificence of late S. B. Dey who not only donated his entire property, known as Helen Lodge and comprising 5 acres of land, but also contributed Rs. 64,000 towards the construction of buildings. In 1946 the State Government made a total grant of Rs. 5,40,000 for the erection of the main hospital building (with 140 beds) which was opened in 1951. Government assistance in this behalf was supplemented by generous public contributions which amounted to nearly Rs. 5,00,000. The North Eastern and North-East Frontier Railways have 60 beds, housed in an annexe, reserved for the exclusive treatment of their employees. Thus there are now 294 beds of which 201 free beds are reserved by different Government departments and the Sanatorium maintains out of its own fund 32 free beds and 15 half-free beds.¹ The hospital is manned by 5 Medical Officers and 131 members of other staff. The following is a statement of admissions, discharges and deaths in respect of the hospital from 1961 to 1966.²

Year	Admission	Discharge	Deaths
1961	317	320	10
1962	297	316	20
1963	301	286	15
1964	263	265	15
1965	284	296	12
1966	312	339	22

1.2 Source : Asstt. Superintendent, S. B. Dey Sanatorium, Kurseong.

The tea gardens of the district have, generally, their own medical arrangements and have beds reserved for their employees in a number of hospitals, both public and private.

In the private sector the Indian Red Cross Society (Darjiling District Branch) helps in domiciliary treatment of T.B. and in maternity and child welfare activities. The Desabandhu Memorial Society also runs 3 maternity and child welfare units, two in Darjiling town and one at Ghum. Started in 1954 and financed by the 'Desabandhu Charity Fund', the workers of this Society visit the houses of poor, expectant mothers to advise them about easy delivery and others about family planning. Free supplies of milk and medicine are also made to them. The Society has another unit, the 'Desabandhu Trained Dai Institution', to train mostly Nepali girls in nursing and midwifery who, after completion of their training, usually work amongst tea garden labourers.

During the first two Five-Year Plans, population control was based on a clinical approach to the problem and a number of health institutions were utilized as service centres which, however, achieved little in bringing down birth rates. During the Third Plan the State Government launched a comprehensive scheme of family planning with 100% subsidy on a non-recurring and 75% on recurring outlay and having both maternity and child health programmes within its purview. In rural areas contraceptives were supplied free, while in urban areas their distribution was tagged to incomes—those with a monthly income up to Rs. 300 received them free, between Rs. 300 and Rs. 500 at half the price and above Rs. 500 at full price. The final year of the Third Plan saw the campaign speeded up to an emergency level when the entire set-up was geared up and reorganized. A District Family Planning Officer was appointed in each district, including Darjiling. At present the family planning unit¹ in the district is headed by the C.M.O.H. who is assisted by a District Family Planning Officer who, again, has under him, part-time and full-time Medical Officers (both male and female), Extension Educators, field workers (both male and female), besides a statistical assistant and other office staff. There are five urban family planning centres in the district, namely, the District Family Welfare Planning Bureau, Darjiling; the Family Planning Centre attached to the Victoria Hospital, Darjiling; the Family Planning Centre, Kalimpong and the family planning centres attached to the two sub-divisional hospitals at Kurseong and Siliguri. The Desabandhu Memorial Society, a private organization, also runs three units—two in Darjiling town and one at Ghum. Besides, a maternity, child welfare and family planning centre is attached to the Charter is Hospital at Kalimpong. In the rural areas the following Primary and Subsidiary Health Centres as also the sub-centres under them run small family planning units.²

Public Health
welfare organi-
zations

Family planning

¹ Source : Chief Medical Officer of Health, Darjiling.
Source : District Family Planning Officer, Darjiling.

RURAL FAMILY PLANNING UNITS IN DARJILING DISTRICT : 1968

Name of Health Centre	Police Station	Sub-Centres
Pedong P.H.C.	Kalimpong	Algarah, Kagay, Lingsay, Gitdubling
Gorubathan P.H.C.	Gorubathan	Ja'dhaka, Kumai, Jhalung-Rongoo
Naksalbari P.H.C.	Naksalbari	Matigara, Baghdogra, Barajhora-Baramoniram, Bagdogra-Ranidanga-Gosaipur, Matigara-Palash
Sukna P.H.C.	Kurseong	Bagora, Sittong, Sukna-Chunabhati, Gayabari-Tindharia, Pankhabari-Simulbari
Mirik P.H.C.	Mirik	Sourini-Mechi, Thurboo-Okaity, Mirik Lower Busty
Takdah P.H.C.	Rangli-Rangliot	Takling, Singrimtam, 6th Mile
Sukhiapokhri P.H.C.	Sukhhiapokhri	Sonada-Rongbull, Pokhri-abong, Jorebungalow
Bijanbari P.H.C.	Pulbazar	Lodhama, Kaijaliya, Singla-Goke
Samthar Samalbong S.H.C.	Kalimpong	Chunabhati, Pudung, Tista Bridge
Kharibari S.H.C.	Kharibari	Rangali, Phansidewa-Chathat, Ambari-Bidhannagar, Kharibari-Batasi

During 1965-6, 5,202 I.U.C.D. (intra-uterine contraceptive device, popularly known as the 'loop') cases, 188 vasectomy and 71 tubectomy operations were reported in the district. In 1966-7, I.U.C.D. insertions numbered 1,834, vasectomy operations 72 and tubectomy operations 116 the corresponding figures for 1967-8 being 851, 3,060 and 246 respectively.¹

¹ Source : District Family Planning Officer, Darjiling.

Although no large-scale nutritional programme appears to have been taken up in the district, the Darjiling Branch of the Indian Red Cross Society ran 32 milk canteens in the district which benefited about 48,000 persons in 1966. From March 1967, the Society also ran 19 Centres at different places in the district for distributing cooked food (boiled rice) with vegetable curry daily to indigent children up to 14 years.

Nutrition

The Public Health and Sanitation set-up of the district may be broadly divided into two sectors—urban and rural. The former is under the respective municipalities in the towns of Darjiling, Kurseong, Kalimpong and Siliguri while the latter is under the Chief Medical Officer of Health assisted by the District Health Officer with his posse of Sanitary Inspectors. Some Assistant Engineers of the Public Health Engineering Department have also been posted in the subdivisions to look after augmentation of water-supply in municipal areas under a scheme sponsored by the Government. The functions of the municipalities in the spheres of public health and sanitation have already been dealt with elsewhere. In the rural set-up the District Health Officer, the Sub-divisional Health Officers and Sanitary Inspectors look after environmental sanitation, epidemic control, prevention of food adulteration, health education and initiation of preventive measures like vaccination and inoculation. The services of the public health staff working in the rural areas under the District Board were provincialized with effect from 1 January 1959 and brought under the control of C.M.O.H. With the introduction of Panchayati Raj, the Zilla Parishad replaced the District Board and the Public Health Standing Committee of the Parishad formally executes water-supply schemes in the district out of the Parishad's own funds supplemented by such financial assistance as was received from the State Government.

Sanitation


The sources of potable water in the district are the various hill springs from which water is brought to supply points through pipelines. The Darjiling and Kurseong municipalities have been supplying tap-water since the completion of their waterworks in 1912 and 1913 respectively. The waterworks supplying tap-water within the Kalimpong Municipality was erected in 1922 as is operated by the Public Health Engineering Directorate of the State Government. In the Siliguri municipal area shallow ring wells are still the main source of water-supply and the municipality has hitherto provided 30 such wells for public use. The activities of all the four municipalities in the district with regard to water-supply, drainage and sewage disposal, etc. have been dealt with elsewhere. The Tribal Welfare Department of the State Government also constructs pipelines from hill springs for conveying water to villages mainly inhabited by Scheduled Castes and Scheduled Tribes. The Zilla Parishad also sinks ring wells or constructs pipelines.

Water-supply

Regarding augmentation of water-supply in the Kurseong municipal area, an Assistant Engineer of the Public Health Engineering Directorate has been posted there to look after the Kurseong Water-Supply Remodelling Scheme which proposes to supply water at the rate of 20 g.p.c.d. (gallons per *capita* per day) for an ultimate population of 25,000 at the end of 20 years for which the overall requirement of water would be 0.5 m.g.d. (million gallons per day). The water obtained from the existing sources being only 0.17 m.g.d., the deficit of 0.33 m.g.d. is proposed to be met by tapping the Panigarah and Babukhola springs situated nearly 5 miles away. A scheme for augmenting water-supply in the Darjiling municipal area was taken up towards the end of 1965. It envisages tapping of 11 perennial springs on the northern slope of Senchal hill with the expectation of carrying 0.25 m.g.d. of water to the existing filter house through 6, 8 and 12 inch pipelines for a length of approximately $7\frac{1}{2}$ miles.

Vaccination

O'Malley in his Darjiling District Gazetteer published in 1907 observed : "In the hills the people have a great horror of smallpox, and welcome vaccination. In the Tarai the sickly inhabitants are either prejudiced against it or indifferent to the protection it affords."¹ But vaccination now plays a major role in preventing smallpox in the district as will be evident from the following table.²



Year	No. of successful vaccinations	Death rate from smallpox per mille
1951	38,993	0.2
1952	31,229	0.01
1953	35,116	0.08
1954	37,511	0.01
1955	39,136	—
1956	34,378	0.002
1957	35,731	0.004
1958	38,837	0.04
1959	63,938	0.1
1960	56,714	0.003

¹ L. S. S. O'Malley—*op. cit.*, p. 58.

² Government of West Bengal, Directorate of Health Services—*Annual Report on the State of Health of West Bengal, 1960*; Calcutta, 1962, pp. 808-9.

The following table¹ gives the number of vaccinations and inoculations administered in the district between 1961 and 1966.

Year	Vaccinations	Re-Vaccinations	T.A.B.C. Inoculations
1961	14,864	1,64,174	7,217
1962	16,141	2,23,642	9,519
1963	10,874	2,55,976	1,654
1964	8,238	1,26,426	9,515
1965	22,210	2,16,864	16,335
1966	18,472	1,37,060	19,028



¹ Source ; Chief Medical Officer of Health, Darjiling.

APPENDIX

PATIENTS TREATED IN RECOGNIZED HOSPITALS IN DARJILING
DISTRICT & DEATHS FROM SPECIFIC CAUSES : 1961-64

Name of disease		1961	1962	1963	1964
Anaemias	Out-door	5,251	6,469	6,281	70,256
	Indoor	99	349	334	340
	Deaths	28	32	30	19
Asthma	Out-door	1,873	2,858	3,276	2,916
	Indoor	210	105	100	86
	Deaths	6	8	—	5
Blackwater fever	Out-door	182	89	161	110
	Indoor	—	—	—	1
	Deaths	—	—	—	—
Bronchitis (acute)	Out-door	5,727	7,865	8,766	8,312
	Indoor	15	56	77	79
	Deaths	—	2	1	—
Bronchitis (chronic)	Out-door	3,547	4,228	3,914	3,963
	Indoor	84	518	428	411
	Deaths	11	6	10	8
Cholera	Out-door	1	4	2	1
	Indoor	—	—	24	1
	Deaths	—	—	7	—
Child birth— diseases at	Out-door	921	1,552	914	873
	Indoor	64	245	199	195
	Deaths	11	10	10	10
Diphtheria	Out-door	15	7	10	62
	Indoor	12	45	31	51
	Deaths	4	8	9	6
Dysentery (amoebic)	Out-door	6,780	9,895	9,234	10,132
	Indoor	34	156	157	113
	Deaths	4	6	7	—
Dysentery (bacillary)	Out-door	2,067	2,547	2,411	2,975
	Indoor	27	93	62	149
	Deaths	6	3	6	7

Dysentery (other forms)	Out-door	2,590	3,748	5,266	4,873
	Indoor	40	213	338	237
	Deaths	6	14	22	6
Early infancy diseases	Out-door	4	3	13	4
	Indoor	19	46	39	39
	Deaths	12	25	17	30
Filariasis	Out-door	138	147	188	253
	Indoor	2	4	5	3
	Deaths	1	—	—	—
Gastritis	Out-door	4,378	3,984	4,014	5,406
	Indoor	31	128	145	114
	Deaths	1	2	1	—
Gonococcal infection	Out-door	460	545	570	529
	Indoor	1	3	1	4
	Deaths	—	—	—	—
Influenza	Out-door	18,113	22,563	14,587	22,093
	Indoor	55	390	313	221
	Deaths	—	—	2	—
Kala-azar	Out-door	9	26	21	7
	Indoor	6	19	12	30
	Deaths	1	1	1	—
Leprosy	Out-door	25	63	74	31
	Indoor	—	4	3	6
	Deaths	—	1	1	1
Malaria	Out-door	2,571	1,619	805	171
	Indoor	69	203	168	108
	Deaths	7	5	4	—
Measles	Out-door	224	216	302	250
	Indoor	3	57	56	14
	Deaths	—	1	2	1
Mental Diseases	Out-door	523	3,346	1,222	131
	Indoor	5	57	54	56
	Deaths	—	—	—	—
Para-Typhoid	Out-door	371	678	640	291
	Indoor	—	11	24	7
	Deaths	—	—	—	—

Poison (effect of)	Out-door	104	57	123	62
	Indoor	25	128	173	149
	Deaths	3	1	5	1
Senility etc.	Out-door	305	17	3	41
	Indoor	1	8	5	6
	Deaths	—	—	—	1
Smallpox	Out-door	14	12	57	42
	Indoor	5	2	5	1
	Deaths	5	—	2	—
Syphilis (various types of)	Out-door	115	284	223	186
	Indoor	5	3	7	3
	Deaths	2	1	4	—
T.B. (Pulmonary)	Out-door	1,259	2,003	1,804	1,966
	Indoor	95	366	342	498
	Deaths	34	60	64	60
T.B. (Respiratory)	Out-door	221	249	128	151
	Indoor	8	41	69	44
	Deaths	1	4	6	9
T.B. of Meninges	Out-door	17	97	325	62
	Indoor	8	32	48	52
	Deaths	8	10	19	25
T.B. of Intestine etc.	Out-door	86	224	252	130
	Indoor	24	60	85	78
	Deaths	6	6	14	9
T.B. of Bones etc.	Out-door	109	176	335	47
	Indoor	12	91	68	49
	Deaths	—	2	3	—
T.B. (Other forms)	Out-door	187	307	247	312
	Indoor	10	41	45	36
	Deaths	—	2	2	2
Typhoid	Out-door	271	488	400	287
	Indoor	43	185	280	235
	Deaths	7	5	8	3

CHAPTER XIV

PUBLIC LIFE AND VOLUNTARY SOCIAL SERVICE ORGANIZATIONS

In the First General Elections held in 1952 this district was represented in the State Assembly by 5 members elected from 4 constituencies, namely, Kalimpong, Darjiling, Jore-Bungalow and Kurseong-Siliguri. The last-named constituency was a double-membered one with one seat reserved for a Scheduled Tribe candidate. The Kalimpong and Kurseong-Siliguri constituencies comprised the respective subdivisions, while the Darjiling constituency covered the Darjiling and Pulbazar police stations and Jore-Bungalow the remaining police stations of the Sadar subdivision.

REPRESENTATION OF
THE DISTRICT IN
THE STATE AND
UNION
LEGISLATURES

Vidhan Sabha
(Legislative
Assembly)

The Delimitation of Constituencies Order of 1956 separated the Mirik police station from the old Kurseong-Siliguri constituency which was renamed as Siliguri constituency and added the former to the Jore-Bungalow constituency. The number of Assembly seats, including the Scheduled Tribe seat in Siliguri constituency, however, remained the same.

The Siliguri constituency was bifurcated into Siliguri and Phansidewa, following the delimitation of 1961. The former comprised P. S. Kurseong, the Siliguri municipality and Unions No. 4 and 5 of P. S. Siliguri, while the latter's jurisdiction was confined to Siliguri subdivision (excluding Siliguri municipality and Unions No. 4 and 5 of P. S. Siliguri) and the area of the old Chopra thana lying to the north of the river Mahananda in P. S. Phansidewa. With 5 seats equally distributed amongst the 5 constituencies, Phansidewa got only the reserved seat.

According to the delimitation of 1966, the jurisdictions of Darjiling, Jore-Bungalow, Siliguri and Phansidewa constituencies were re-adjusted. P. S. Sukhiapukri (excluding mauzas bearing J. L. Nos. 6 to 11) was added to the erstwhile Darjiling constituency, while the resulting loss to Jore-Bungalow, which retained mauzas bearing J. L. Nos. 6 to 11 in P.S. Sukhiapukri in Sadar subdivision, was compensated by the addition of mauzas bearing J. L. Nos. 55, 116 to 132 and 144 to 146 in P. S. Naksalbari in Siliguri Subdivision. The Siliguri constituency now covered the Kurseong and Siliguri police stations excluding the area falling within the Atharakhoi and Patharghata Anchal Panchayats and mauzas bearing J. L. Nos. 13, 16, 19, 20 to 22, 25, 27, 54, 60 and 61 in Siliguri subdivision. The police stations of Phansidewa, Kharibari and Naksalbari (excluding the portion added to the Jore-Bungalow constituency) together with the excluded area of P. S. Siliguri kept outside the Siliguri constituency formed the Phansidewa constituency.

Vidhan Parishad**Legislative
Council)**

In 1951-52 the district did not have exclusive representation in the State Legislative Council from the constituencies earmarked for graduates and teachers. It formed part of the West Bengal North (Graduates') and the Presidency Division North (Teachers') constituencies, each of which returned one member to the Council. The Darjiling Local Authorities' Constituency also sent one member to the Council. The Delimitation of Council Constituencies Order of 1958 changed the nomenclature of all these constituencies to West Bengal (Graduates'), West Bengal (Teachers') and West Bengal North (Local Authorities'), the former two comprising the Presidency and Bardhaman Divisions (excluding Calcutta whose extent was specifically defined) and the latter comprising the districts of Darjiling, Jalpaiguri and Koch-Bihar. Each of these constituencies sent 3 members to the Council. Under the Amendment Order of 1961, both the West Bengal North Graduates' and West Bengal North Teachers' constituencies comprised this district along with the districts of Jalpaiguri, Koch-Bihar, West Dinajpur and Maldah. Each of these constituencies returned one member, while the renamed Darjiling Local Authorities' Constituency, having as its constituents the municipalities of Darjiling, Kurseong, Kalimpong and Siliguri, the Zilla Parishad, the various Anchalik Parishads, Jalapahar and Lebong Cantonment Boards, sent one member.

**Lok Sabha (House
of the People)**

The district did not have any Parliamentary constituency exclusive to itself in the First General Elections. It shared the North Bengal Parliamentary constituency along with the districts of Jalpaiguri and Koch-Bihar, electing 3 members, one of the seats being reserved for a Scheduled Caste and another for a Scheduled Tribe candidate. The Delimitation of Constituencies Order of 1956 abolished this constituency and created another which, though named after this district, contained, besides the district itself, some portions of the Jalpaiguri district, namely the police stations of Mal, Matelli and Nagrakata, Union No. 1, Jadabpur Tea Estate, Upper Tondou Forest Range in P. S. Mainaguri, such part of Lower Tondou Forest Range as is included in P. S. Mainaguri and such part of Diana Forest Range as is included in the police stations of Mainaguri and Dhupguri in Sadar subdivision. Under the order of 1961, all other portions of the Jalpaiguri district excepting the police stations of Mal and Nagrakata were taken away from this constituency. Material changes were effected under the order of 1966 when the Assembly constituency of Phansidewa was separated from it and added to the Raiganj Parliamentary constituency while, besides Mal and Nagrakata Assembly Constituencies (already belonging to the Darjiling Parliamentary Constituency), that of Mainaguri in Jalpaiguri district was newly added to it.

**Political Parties
and Organizations**

Besides the Gorkha League, a party of local character; and the Bangla Congress, which had an ephemeral existence immediately before and after the Fourth General Elections, most of the all-India parties are represented in the political arena of the district.

An assessment of their relative strength at different times may be attempted through a study of the results of successive General Elections to the Lok Sabha and the Vidhan Sabha.

In the First General Elections held in 1952 all the three Lok Sabha seats of the North Bengal constituency went to the Congress, which polled a total of 57.98 % of the valid votes, while the Forward Bloc (Ruikar) and the K. M. P. P., which put up one candidate each, cut a sorry figure by mustering only 8.96 % and 7.79 % of the poll respectively. The reconstituted Darjiling constituency too preferred to remain within the Congress fold in the Second and the Third General Elections held in 1957 and 1962 respectively. The victorious Congress candidate who polled 43.27 % of the valid votes in the Second General Elections was immediately followed by a C. P. I. nominee who secured 35.63 % of the votes. In the Third General Elections held in 1962, the Congress victory was won on a lesser proportion of valid votes which went down this time to 35.03 % while the C. P. I. trailed behind with a similar decline in popular support aggregating to 30.57 % of the poll. The Gorkha League, which for the first time contested this Lok Sabha seat, polled 24.44 %. The Bhartiya Jana Sangh also appeared on the scene only to cut a sorry figure with 6.21 % of the votes. In the Fourth General Elections held in 1967, this constituency opted for a female independent candidate who won by a margin of 1,831 votes over her nearest rival, the sitting Congress member, other contestants being the nominees of C.P.M. and the Bhartiya Jana Sangh whose influence also underwent further decline this time. In terms of percentage of the valid votes, she polled 39.27 % against the Congress's 38.54 %, the C.P.M.'s 16.68 % and the Bhartiya Jana Sangh's 5.21 %.

Elections to the
Lok Sabha

For the 5 seats in the First General Elections there were 18 contestants, 5 of whom belonged to the Congress, 4 each to the C.P.I. and the Gorkha League, 2 to the Socialist Party and 1 to the K. M. P. P. while the remaining 2 fought independently. The Gorkha League gave a good account of itself by capturing 3 of the 5 seats, namely Darjiling, Jore-Bungalow and Kurseong-Siliguri (General), while the Congress won the reserved Kurseong-Siliguri seat. The C.P.I.'s success in the Kalimpong constituency was short-lived as the election of its candidate was declared void and in a bye-election, held later, the seat went to the Gorkha League. The Gorkha League won in the Darjiling and Jore-Bungalow constituencies by securing 48.05 % and 64.14 % of the votes respectively, while the Congress and the C. P. I. shared 26.65 % and 15.40 % and 25.90 % and 20.18 % of the polls in the respective constituencies. The Gorkha League won the General seat in the double-membered Kurseong-Siliguri constituency by a small majority of 255 votes over the nearest rival belonging to the Congress. In terms of percentage of valid votes, it scored 16.65 % against the Congress's 16.13 % while the K. M. P. P. and the

Elections to the
Vidhan Sabha

Socialist Party got only 11.74% and 2.34% respectively. In the reserved Kurseong-Siliguri seat the Congress obtained 15.27% of the valid votes, followed by the Gorkha League, the C.P.I. and the Socialist Party with 13.87%, 12.99% and 3.09% of the poll respectively to their credit. In the bye-election in the Kalimpong constituency held in January 1953, the Gorkha League won with a comfortable majority of 87.22% of the votes defeating the C.P.I. nominee who had secured 59.87% of the poll in the preceding General Elections.

In the Second General Elections the Congress and the C.P.I. set up 4 candidates each, while the P. S. P. and the Bhartiya Jana Sangh 1 each. Amongst the 17 persons who fought independently were those sponsored by the Labour and the Right wings of the Gorkha League, which came into being following a split in the party after the First General Elections. The Labour wing of the Gorkha League captured the Darjiling seat by defeating the sitting member, a nominee of the Congress, and several others including the candidates set up by its own Right wing and the C. P. I. The winning candidate polled 33.30% and the C. P. I. 32.21% of the valid votes. The Congress trailed behind with 21.47% while the Gorkha League (Right wing) put up a poor show with only 5.85%. The Congress retained the reserved Siliguri seat by securing 15.70% of the poll against C. P. I.'s 14.34% and Gorkha League's (Labour wing) 7.51%. The general seat, however, went to the C. P. I. which got 17.48% of the valid votes while other contestants belonging to the Congress, the Gorkha League (Right wing) and the Bhartiya Jana Sangh polled 16.01%, 11.80% and 2.93% respectively. The Jore-Bungalow constituency also changed its allegiance in favour of the C. P. I. which mustered 32.52% of the poll followed by the Gorkha League (Labour wing) with 26.50%. The sitting Gorkha League member, who fought this time as a Congress nominee, polled 23.11%. In the Kalimpong constituency the sitting Gorkha League member, who contested independently, came out successful with 49.10% of the electorate behind him, while the Gorkha League (Labour wing) nominee put up a plucky fight with 33.57%. The P. S. P. trailed far behind with 10.62% of the valid votes to its credit.

In the Third General Elections, the number of contestants for the 5 Assembly seats decreased to 23, of whom 5 each were set up by the Congress and the C. P. I., 4 by the Gorkha League, 2 by the P. S. P. and the rest fought independently. Besides retaining the Darjiling seat, the Gorkha League annexed the Kalimpong one and the Congress displaced the C. P. I. from the Siliguri constituency, the latter being successful only in the Jore-Bungalow constituency. The new Phansidewa (Reserved) seat was also captured by the Congress. In the Darjiling constituency the Gorkha League's influence increased considerably, its polling strength standing at 49.17% with a consequential decline in the hold of the C. P. I. and the Congress which polled only 24.85%

and 18.36% respectively of the valid votes while the P. S. P. put up a poor show with only 1.26%. In the Kalimpong constituency the sitting member, who fought the previous election independently, contested this time on the Congress ticket but lost to the Gorkha League. The latter polled 52.94% of the valid votes as against the former's 32.82% while the C. P. I. and the P. S. P. trailed far behind with only 8.62% and 1.35% respectively. The C. P. I. retained the Jore-Bungalow seat by defeating the nearest rival belonging to the Gorkha League by a narrow margin of 129 votes. In terms of percentages of valid votes, the former secured 41.71% against 41.11% of the latter, while the other contestant, a Congress nominee, obtained only 17.18%. In the reconstituted Siliguri constituency the Congress got the support of 38.20% of the voters while the C. P. I. and the Gorkha League were respectively backed by 32.69% and 22.43% of them. The bye-election held in this constituency in December 1963 on the death of the sitting Congress member witnessed a considerable rise in the popularity of the Congress which scored 51.52% of the votes in contrast to the waning influence of the C. P. I. which made a poor show with only 11.55%. The Forward Bloc also entered the arena only to finish with a share of 14.30% of the poll. The annexation of the newly constituted Phansidewa constituency by the Congress was accompanied by the capture of 41.90% of the valid votes while the nearest rival belonging to the C. P. I. followed with 36.83%.

In the Fourth General Elections the number of contestants for the 5 Assembly seats declined further to 19. Of them 5 belonged to the Congress, 4 to the Gorkha League, 3 to the C. P. M., 2 to the Bhartiya Jana Sangh, 1 to the Bangla Congress and 1 to the C. P. I. while the rest fought independently. The Congress made further headway this time bagging 3 of the 5 seats. It displaced the Gorkha League from the Kalimpong constituency, besides retaining the Siliguri and the Phansidewa seats. The latter, in turn, annexed the Jore-Bungalow seat, won by the C. P. I. in the previous election, while retaining its hold on the Darjiling constituency. The sitting Gorkha League member from the Darjiling constituency polled this time a higher percentage of valid votes, namely 51.03% while his nearest rival, a Congress candidate, trailed behind with 32.46%. The Gorkha League secured 42.96% of the valid votes in the Jore-Bungalow constituency where the Congress polled 36.30% and the C. P. I. 20.74%. In the Kalimpong constituency, the Congress got 50.66% of the valid votes, followed by the Gorkha League, the C.P.I. and the Bhartiya Jana Sangh with 40.42%, 4.96% and 3.96% of the poll to their credit. In the Siliguri constituency the polling strength of the Congress went slightly down to 32.81% while in the case of the Gorkha League it rose to 26.17%. The Bangla Congress and the C. P. M. lagged behind with 18.82% and 15.35% respectively while the Bhartiya Jana Sangh put up a poor show with only 5.16%. In the Phansidewa constituency, the Congress showed a slightly better performance this time by polling 45.36% of the valid votes while the C.P.M. trailed behind with only 29.30%.

The following tables A and B show details of election results during 1952-69.

**A. REPRESENTATION TO LOK SABHA FROM
DARJILING DISTRICT**

	Names of Polical Parties*						
	I.N.C.	F.B.	K.M.	C.P.I.	G.L.	B.J.S.	C.P.M.
<i>First General Elections : 1952</i>		(Ruikar)	P.P.				
Seats contested	3	1	1	—	—	—	—
Seats won	3	—	—	—	—	—	—
Votes polled	4,99,842	77,203	67,181	—	—	—	—
Percentage of valid votes	57.98	8.96	7.79	—	—	—	—
<i>Second General Elections : 1967</i>							
Seats contested	1	—	—	1	—	—	—
Seats won	1	—	—	—	—	—	—
Votes polled	60,460	—	—	49,785	—	—	—
Percentage of valid votes	43.27	—	—	35.63	—	—	—
<i>Thrd General Elections : 1962</i>							
Seats contested	1	—	—	1	1	1	—
Seats won	1	—	—	—	—	—	—
Votes polled	66,129	—	—	57,702	46,127	11,730	—
Percentage of valid votes	35.03	—	—	30.57	24.44	6.21	—
<i>Fourth General Elections : 1969</i>							
Seats contested	1**	—	—	—	—	1	1
Seats won	—	—	—	—	—	—	—
Votes polled	95,645	—	—	—	—	12,942	42,136
Percentage of valid votes	38.54	—	—	—	—	5.21	16.98

*I.N.C.—Indian National Congress ; F.B.—Forward Bloc ; K.M.P.P.—Krishak Mazdoor Praja Party ; S.P.—Socialist Party ; P.S.P.—Praja Socialist Party ; C.P.I.—Communist Party of India ; C.P.M.—Communist Party of India (Marxist) ; G.L.—Gorkha League ; B.C.—Bangla Congress ; B.J.S.—Bhartiya Jana Sangha.

**This seat was won by an independent candidate who polled 39.27% of the valid votes.

B. REPRESENTATION TO VIDHAN SABHA FROM DARJILING DISTRICT

	Names of Political Parties								
	I.N.C.*	K.M. P.P.	S.P.	P.S.P.	G.L.	C.P.I.	B.J.S.	C.P.M.	B.C.
<i>First General Elections 1952</i>									
Seats con- tested	4	1	2	—	4	3	—	—	—
Seats won	1	—	—	—	3	—	—	—	—
Votes polled	21,609	5,823	2,693	—	31,320	13,124	—	—	—
Percentage of valid votes	27.53	7.42	3.43	—	39.90	16.72	—	—	—
<i>Second Genral Elections : 1957</i>									
Seats con- tested	4	—	—	1	4**	4	1	—	—
Seats won	1	—	—	—	1	2	—	—	—
Votes polled	32,748	—	—	1,327	18,868	35,667	2,440	—	—
Percentage of valid votes	26.38	—	—	1.07	15.20	28.73	1.97	—	—
<i>Thrd General Elections : 1962</i>									
Seats con- tested	5	—	—	2	4	5	—	—	—
Seats won	2	—	—	—	2	1	—	—	—
Votes polled	37,860	—	—	560	38,076	35,431	—	—	—
Percentage of valid votes	31.14	—	—	0.46	31.31	29.14	—	—	—
<i>Fourth General Elections : 1967</i>									
Seats con- tested	5	—	—	—	4	1	2	3	1
Seats won	3	—	—	—	2	—	—	—	—
Votes polled	65,469	—	—	—	50,365	1,470	3,475	23,331	8,393
Percentage of valid votes	33.22	—	—	—	30.17	0.88	2.08	13.97	5.03

*This does not include the result of the Kalimpong constituency.

**This represents the performance of the Labour wing of the Gorkha League.

Mid-term
elections 1969

In the mid-term elections of 1969 to the Vidhan Sabha the following results ensued, the first-named party winning the seat from each constituency.

MID-TERM ELECTIONS TO VIDHAN SABHA FROM
DARJILING DISTRICT: 1969

Names of Constituencies	Names of political parties contesting	No. of Votes polled
Kalimpong	Gorkha League	15,418
	Congress	11,120
	Bharatiya Jana Sangha	803
	Independent	628
Darjiling	Gorkha League	15,698
	Congress	11,519
Jorebungalow	Gorkha League	15,693
	Congress	11,085
Siliguri	Gorkha League	24,856
	Congress	16,858
	Bharatiya Jana Sangha	1,169
	Proutist Bloc	531
Phansidewa (Scheduled tribe)	Congress	20,974
	C P I (M)	11,228
	Independent	3,630
	Independent	2,079
	Jana Sangha	965
	Proutist Bloc	423

The mid-term elections to Vidhan Sabha in 1971 showed the following results, the first named party winning the seat from the respective constituency.

Mid-term
elections 1971

MID-TERM ELECTIONS TO VIDHAN SABHA FROM
DARJILING DISTRICT : 1971

Names of Constituencies	Names of political parties contesting	No. of Votes polled
Kalimpong	Independent	10,810
	Gorkha League-L	7,388
	Congress (R)	4,841
	C P I (M)	4,718
	Independent	620
Darjiling	Gorkha League	14,998
	Congress (R)	9,133
	C P I (M)	8,042
Jorebungalow	C P I (M)	12,858
	Gorkha League	12,572
	Congress (R)	6,341
	Congress (O)	1,562
Siliguri	Congress (R)	20,764
	C P I (M)	12,268
	C P I	5,745
	Independent	1,339
Phansidewa (Scheduled tribe)	Congress (R)	19,259
	C P I (M)	14,678
	Forward Bloc	3,415
	Bangla Congress	2,165
	R S P	1,968
	Congress (O)	1,799

Fifth General
Elections 1972

The fifth general elections to Vidhan Sabha in 1972 showed the following results, the first-named party winning the seat from the respective constituency.

FIFTH GENERAL ELECTIONS VIDHAN SABHA FROM
DARJILING DISTRICT : 1972

Names of constituencies	Names of political parties contesting	No. of Votes polled
Kalimpong	Congress	10,190
	Gorkha League	8,806
	Independent	4,782
	C P I (M)	3,325
Darjiling	Gorkha League	14,933
	Independent	9,476
	Congress	7,331
	Independent	789
	Independent	403
Jorebungalow	Gorkha League	12,063
	Congress	11,517
	C P I (M)	11,031
	Independent	740
Siliguri	Congress	26,728
	C P I (M)	12,226
	Independent	1,305
	Proutist Bloc of India	618
Phansidewa (Scheduled tribe)	Congress	27,894
	C P I (M)	16,912

Lok Sabha
elections 1971

Elections to the Lok Sabha seat from Darjiling in 1971 showed the following results, the first-named party winning the seat.

LOK SABHA ELECTION RESULTS FROM
DARJILING DISTRICT : 1971

Darjiling	C P I (M)	84,408
	Independent	72,131
	Independent	66,035
	Independent	16,946
	P S P	14,793

The sixth General Elections in the district were held on 11 June 1977 and the results of the same are given below

Sixth General
elections for Vidhan
Sabha 1977

SIXTH GENERAL ELECTIONS FOR VIDHAN SABHA
FROM DARJILING DISTRICT : 1977

Names of Constituencies	Party winning	Total Valid votes polled	Total rejected votes	Total No. of ten- dered votes	Votes polled by the winning party
Kalimpong	Independent	32,759	887	28	13,983
Darjiling	Gorkha League	39,705	1,246	41	12,607
Kurseong	Congress	43,315	1,021	41	11,941
Siliguri	C. P. I. (M)	54,590	945	59	25,094
Phansidewa (S.T.)	C. P. I. (M)	49,692	1,463	16	20,819

The Lok Sabha seat from the Darjiling district consists of 7 segments of Vidhan Sabha constituencies, namely, Kalimpong, Darjiling, Kurseong, Siliguri, Phansidewa, Chopra and Islampur—the last two belonging to West Dinajpur district. On 16 March 1977 the poll took place with 10 contesting candidates—1 of Congress, 7 Independents and 1 of the Indian Gorkha League.

Lok-Sabha
elections 1977

The total electors numbered 6,24,898 (3,49,342 males and 2,75,556 females) of whom 2,72,135 (1,74,823 males and 97,312 females) voted. Total valid votes, however, numbered 2,61,953, while there were 10,182 rejected votes.

The winning Congress Party member obtained 1,09,520 votes.

NEWSPAPERS & PERIODICALS

The only daily newspaper published from Darjiling district—the *Tibetan Freedom*—is in Tibetan. It came out for the first time on 9 March 1965 and was born of the merger of two Tibetan language weeklies, *Freedom* and *Defend Tibetan Freedom*. It is published from Darjiling town and has a circulation of about 1,200 copies, principally among the Himalayan people. It carries, mainly, news on current world affairs. Besides, the popular dailies of Calcutta, both in English and in Bengali, are in common circulation in the district.

The district has never been a favourable ground for a daily newspaper to grow. Weeklies and monthlies have been started at different times but few of them have survived. In 1871, Hunter, in his *Statistical Account of Bengal*, recorded that the only newspaper in the district, *The Darjeeling News*, had a meagre circulation of 150 copies, mainly among the tea planters.

A crop of new journals and periodicals in Bengali, Nepali and English came out in the district shortly after Independence but most of them were shortlived. Among those which are still in existence are the English weekly, *The Himalayan Times* (started in 1947) and the Bengali weeklies, the *Siliguri Patrika* (started in 1950), the *Sainik* (started in 1960) and the *Sangharsha* (started in 1964). A Tibetan monthly the *Yulchong Sosoi Sargjur Melong*, dealing with current affairs, was first published in 1925 and still circulates in the district.

Among the Nepali language periodicals of the district (the year of their first publication are given within brackets) are : the *Gorkha* (1950), the journal of the Gorkha League, the *Sangati* (1954), the *Goreto* (1959), the *Diyalo* (1961) and the *Aukho* (1966). The *Sramik*, the Nepali fortnightly journal of the Trade Union wing of the Gorkha League contains matters of economic and political interest. The *Janadoot* and the *Diyo* are two other literary and cultural monthlies published in Nepali from Darjiling.

Besides these, *The Journal of the Bengal Natural History Society*, first published in June 1926 by the Curator of the Natural History Museum, Darjiling and edited by C. M. Inglis, was brought out with a view to promoting the study of natural history in the district as well as in the neighbouring areas. The journal of the Himalayan Mountaineering Institute, published twice a year, and that of the Himalayan Club, published annually, contain articles of interest to mountaineers and scientists. A monthly periodical in Nepali entitled *Khetipati*, dealing with agriculture and animal husbandry, is published by the Government of West Bengal. Another periodical in Nepali, the *Ragini*, a quarterly first published in April 1966, devotes itself to music.

The Akhil Bharatiya Nepali Pariganit Jati Sangha (All-India Nepali Scheduled Castes Association) of Kalimpong started functioning in 1959 to improve the condition of the Nepali Scheduled Castes people in general with special emphasis on their education, employment and economic amelioration. It helps promote traditional arts and crafts through co-operative efforts and encourages its members to learn scientific methods of cultivation etc., to participate in various welfare activities of the Government, to take advantage of the Government sponsored welfare schemes and to represent in the committees set up by Government for the welfare of Scheduled Castes.

VOLUNTARY SOCIAL
SERVICE ORGANI-
ZATIONS

Akhil Bharatiya
Nepali Pariganit
Jati Sangha

The Darjiling branch of the All-India Women's Conference was established in Darjiling town in 1947 for the welfare of women, children and destitutes. It distributes medicines and nourishing diet to the poor and needy patients, participates in community cooking, feeding the Harijans and entertaining children on occasions of national importance. It runs a creche with 15 children of working mothers and meets the educational expenses of some poor students. It runs a cooking class, a language class for teaching Bengali, Hindi, Nepali and English and also conducted an industrial training unit for some time. During the Chinese aggression in 1962, the organization donated woollen garments, magazines and foods to the Jawans and started two first aid classes for women. It has distributed from time to time cash, food, clothings etc. to the victims of natural calamities and sent contributions to relief and memorial funds all over India. At its instance, a permanent home for orphans, destitutes and women in distress is being constructed at Ladenla Park in Darjiling town.

All India Women's
Conference

Anjuman-e-Islamia, a society of the Muslims of the district was founded at Darjiling town in 1860 and registered in 1909. Land was acquired from the Government and the local municipality and a prayer hall with a few attached rooms was constructed. It is a non-political charitable institution organized to improve the intellectual, moral, social and material conditions of the Muslims of the district. It imparts general education and religious teachings to the Muslims, feeds the poor, assists widows, orphans and distressed persons, conducts relief works, arranges burial of unclaimed dead bodies and those of the poor. It plays its part in fostering healthy relations amongst the various communities. It maintains five mosques at Darjiling town, Butcher Basti, Jalapahar Cantonment, Lebong Cantonment and Sukhiapokhri, two burial grounds for Muslims and a guest house at Darjiling for members of all communities. It runs a Junior Madrasah for boys and a Primary Maktab for girls, which are aided by the State Government and the Darjiling Municipality.

Anjuman-e-Islamia

Arya Samaj, Darjiling, was established in 1883. It has its own building, named Arya Samaj Bhavan, at Chhota Kagjhora where it runs a Primary School in the day and a High School at night.

Arya Samaj

The Samaj regularly organizes lectures and symposia on moral subjects while conversion ceremonies and vedic marriages etc. are also performed from time to time. The Samaj brings out a monthly magazine in Nepali named *Janadoot*. In January 1968, the organization had 559 members on its rolls.

Arya Samiti

The Arya Samiti, a registered institution founded in 1948, has its own building at Desabandhupara, Siliguri. It has donated lands to two local children's schools, the premises of one of which were constructed at Government cost. It runs a library containing about 1,100 books, a gymnasium and a music school for girls. It maintains a commodious hall fitted with a permanent stage, where dramatic and musical performances as also social gatherings are held. It also organizes indoor games, provides relief to the needy, renders financial help to poor students for purchasing books and paying tuition fees and offers medical help and free diet to a number of patients.

Bangiya Mahila Samiti

The Bangiya Mahila Samiti was established in Darjiling town on 23 June 1956. Its membership is restricted to Bengali women only and its funds are raised mainly by holding charity shows performed by its members from time to time. The Samiti runs a tailoring class, a weaving class, a school for adult women besides a school of Tagore music. It also produces and sells woollen goods and snacks to help its poor members. Among its philanthropic activities may be listed the help that it offered to flood-affected people in various parts of Bengal and the assistance rendered to refugees from Assam by way of food, shelter, clothings and cash. At the time of the Chinese invasion in 1962, they supplied woollen garments to the Jawans and donated Rs. 1,000 to the National Defence Fund during the Pakistani aggression of 1965.

The Milani, a club of Bengali residents of Kalimpong, has long been engaged in cultural activities. The Kalimpong Club, set up in 1951 is open to all and has arrangements for indoor and outdoor games, etc. It is based in the Town Hall, Kalimpong.

Bengali Association

The Bengali Association of Kurseong was founded in 1908 and in 1930 it constructed a hall, named 'Raj Rajeswari Hall', on land leased out by the Maharaja of Bardhaman on a token rent, at Dowhill Road. A pioneer organization of the Bengali community in the district, it runs a Primary and a Junior High School through the Bengali medium besides organizing pujas and sponsoring sports and cultural activities. It also maintains a stage for theatrical shows. The Association offers an annual scholarship of Rs. 15 per month to the best Bengali student of the town on the basis of the results of the School Final or Higher Secondary Examination for the year. All its other activities are connected with the welfare of the Bengali Hindu community resident at Kurseong.

The Darjiling Brahmo Samaj was founded on 3 January 1879 at the eastern end of Hill Cart Road on land procured from Government by late Radhanath Roy. In 1888, a prayer hall was constructed but in 1919, the Samaj moved to its present site at Laldighi where a new building with a prayer hall has since been constructed.

Darjiling Brahmo
Samaj

The Darjiling District Referees' and Umpires' Association, a body recognized by the West Bengal District Referees' and Umpires' Association was established at Siliguri in 1962. It imparts training to referees and umpires and conducts an inter-district football tournament.

Darjiling District
Referees' and
Umpires' Associa-
tion

Deokota Sangha, a registered society, was established in August 1963 at Asrampara, Siliguri. It runs a library with about 500 books, conducts musical competition, stages dramas and publishes a literary and cultural magazine named *Barulee*.

Deokota Sangha

Founded in 1954 and financed by the Desabandhu Charity fund, the Desabandhu Memorial Society runs three maternity and child welfare organizations, two within the Darjiling municipal area and one at Ghum. Its workers visit the houses of poor expectant mothers to advise them about easy delivery besides making available to them free supplies of milk and medicine. It also propagates, particularly amongst the poor, ways and means of family planning. On the educational side, the Society runs the Desabandhu Trained Dai Institution to train mostly Nepali girls in nursing and midwifery who, after completion of their training, generally work amongst tea garden labour.

Desabandhu
Memorial Society

A group of social workers of Siliguri who, between 1948 and 1957, had been associated with various local organizations known as Chhatra Sangha, Agni Chakra, Bichitra and the Friends' Union, founded the Desabandhu Sporting Union in 1958 which is primarily a sporting club affiliated to the I.F.A. through the Siliguri Sports Association. It also holds dramatic performances, musical soirees and community worship of goddess Durga besides rendering voluntary services like the cremation of dead bodies etc.

Desabandhu
Sporting Union

The Diocese of Darjiling comprises almost the entire district of Darjiling and Sikkim. It was founded in October 1962 with its headquarters at Bishop's House, Darjiling. The Diocese looks after the spiritual needs of some 21,000 Catholics and runs a large number of educational, social and charitable institutions serving the local people irrespective of caste and creed. More than 10,500 boys and girls receive education in the 2 colleges, 13 Secondary and 29 Primary schools run by it. Its first aid centres and 20 dispensaries cater to the medical needs of people in remote villages while other forms of social services are rendered through co-operative societies, rural upliftment centres, agricultural projects and homes for orphans and destitute children.

The Diocese of
Darjiling

**Dukha Nivarak
ammelan**

The Dukha Nivarak Sammelan was founded at Kalimpong in 1933. It has got its own building, donated by a patron, Gimi Dorjee, where it runs a night school for orphans and other children who cannot afford to join day schools. It offers food and shelter to minors, the sick, the old and the disabled and disposes of dead bodies of persons having none to perform their last rites.

**Eastern Himalayan
Church Council**

The Eastern Himalayan Church Council stemmed from the founding of a Hindi school in 1870 at Lochnagar in Darjiling town by Rev. William Macfarlane, a missionary of the Church of Scotland. In 1880, mission stations were opened at Darjiling, Kurseong and Kalimpong and at some places outside the district. In 1965, with the integration of the Church and the Mission, all spheres of work and all workers, foreign and Indian, came under the Church Council, a regional Council under the United Church of Northern India, with its headquarters at Gyan Dera, 12th mile, Kalimpong. It embraces 14 congregations in Darjiling district, Jalpaiguri Duars and Sikkim with a total membership of about 21,000 men, women and children. It runs 5 educational institutions, namely, Scottish Universities Mission Institute and Kalimpong Girls' High School at Kalimpong, Turnbull High School for boys and Nepali Girls' High School at Darjiling and Junior High School for girls at Kurseong. It also runs the Charteris Hospital, the Leprosy Hospital and a cottage industries unit called the Kalimpong Arts and Crafts, all at Kalimpong.

**Gandhi Smarak
Nidhi**

Founded in May 1963 at Suktara, West Rikshaw Road, Kalimpong, a Central Co-ordination Committee under the Gandhi Smarak Nidhi looks after the special problems of border areas in West Bengal. It has the following long-term objectives : (i) promotion of national integration, (ii) propagation of Gandhian ways of social work, (iii) economic upliftment of the people through the introduction of *khadi* and village industries and (iv) organizing a non-violent peace corps (*Santi Sena*) against outside aggression. To attain these aims, it formed a unit of *Santi Sena* at Kalimpong in 1967 with 54 members. Of the 11 centres functioning under it in West Bengal, 5 are located within the district, namely, Singla Santi Kendra, Sonada Kasturba Kendra, Naksalbari Santi Kendra, Naksalbari Kasturba Kendra and Kharibari Santi Kendra. The Nidhi has set up 5 youth clubs within the Kalimpong subdivision through which it propagates social education on Gandhian lines. It also runs a library and a reading room, 2 women's clubs, a centre for imparting elementary education to adult ladies and a women's crafts training centre, all at Kalimpong.

**Gayaganga
Catholic Church**

Intended for the religious benefit of the Catholic tribals of Tarai, who had originally migrated from Bihar as tea garden labour, the Gayaganga Catholic Church was established at Gayaganga (P. S. Phansidewa) in 1935. Prayer and other religious services are held here daily while on Sundays the congregation exceeds 5,000 Catholics. The Church also holds religious services in distant villages

and tea gardens. It runs a hospital where more than 8,000 patients are treated every year and a High school with 400 students on its rolls and having a Primary section for tribal boys. It also holds periodical classes of two weeks' duration for imparting primary knowledge to local people about conjugal life. For the betterment of local agriculture it has constructed a dam at Ledhamari, a canal at Badal Basti, a road at Bazarigad and a tank at Helaganj.

The Gorkha Dukha Nivarak Sammelan, a registered body, was started in June 1932 with the limited initial object of disposing of unclaimed dead bodies of indigent people. With the passage of time and increase in the popularity of the organization, its activities have expanded considerably. It has now several branches throughout the district and runs an orphanage, a first aid centre, a gymnasium, a guest house, a public library and a reading room, all located in its own three-storeyed building in Darjiling town which is complete with a large auditorium where recreational programmes, body-building competitions etc. are held from time to time. The organization also undertakes relief activities during natural calamities. It receives grants-in-aid from the Darjiling Municipality and the State Government.

Gorkha Dukha
Nivarak Sammelan

Gorkha Ex-Servicemen's Association was established in 1953 at Darjiling to promote and safeguard the economic, social, educational and cultural interests of retired Gorkha personnel of the Indian armed forces. It is affiliated to the All India Gorkha Ex-Servicemen's Association which is a member of the World Veterans' Federation. It has two branches at Kalimpong and Siliguri. Besides protecting the interests of discharged, released and pensioned Gorkha ex-servicemen, it offers school stipends to the wards of its needy Gorkha members.

Gorkha
Ex-Servicemen's
Association

Jatiya Juba Sangha, an institution affiliated to the Bangiya Pradeshik Jatiya Krida-o-Sakti Sangha, was started on 26 January 1956 at Sevoke Road, Siliguri. It runs a library, a gymnasium, a musical section and a charitable homoeopathic dispensary. It organizes a physical training centre at Hakimpura for teen-age boys and girls as also a coaching class for the student-members at the time of vacations. It observes memorial ceremonies of eminent Indians and holds annual exhibitions of its activities. The Sangha aids needy students, helps the poor, nurses the sick and disposes of dead bodies on request.

Jatiya Juba
Sangha

The Darjiling Lions Club was started on 13 June 1958 and received its charter from the Lions International Association on 26 October 1958. Distribution of milk under the Lion Care Scheme, donation of school stationery to needy students, help in cash and kind to the inmates of the Blind School at Kalimpong, and supply of woollen garments to the Jawans stationed at the snow-covered frontiers are some of the activities of the Club. It has also contributed from

Lions Club

time to time cash donations to various relief funds in India. It runs a medical centre at Chowrasta, Darjiling for 3 days in a week, where medical examinations are undertaken and medicines are given free of cost. This unit, which receives an annual grant of Rs. 300 from the Darjiling Municipality, attended to 5,092 patients between June and November 1967.

Pulungdung Basti Mahila Samiti

Pulungdung Basti Mahila Samiti of Sukhiapokhri was established in 1965. It holds a literary class daily and imparts training in clay-modelling, sewing and knitting besides organizing games for the members and staging cultural functions every year.

Ramakrishna Vedanta Asrama

The Ramakrishna Vedanta Asrama was started at Darjiling town in 1925 by Swami Abhedananda as a sister institution of the Ramakrishna Vedanta Society of Calcutta and affiliated to it. The Ramakrishna Sevasrama, founded at Darjiling a little earlier, now functions as an associate organization. In course of time, a charitable homoeopathic dispensary, a Primary school and an orphanage were added to the Asrama which also set up an industrial school for tailoring, carpentry and cane-work. The new building of the Asrama was named after Sister Nivedita, who breathed her last at Darjiling in 1911. A *Devottar* trust looks after the management of the institution which now runs a charitable homoeopathic dispensary (which treats more than 300 people per month), a free Primary school, an urban Junior Basic Training school, a free Upper Primary school, the Sarada Girls' School (free for hill girls), the Ramakrishna Bengali Free Primary School and a Pre-Basic nursery school. It also runs a library and free reading room with about 4,000 books, while a publication unit publishes books in Nepali, Bengali, English and Tibetan. The Asrama has two branches at Kurseong and Siliguri opened in 1955 and 1956 respectively. The former runs a charitable homoeopathic dispensary and four schools at Kurseong, namely, Sri Ramakrishna High School (for girls), Sri Ramakrishna Senior Basic School (for girls), Sri Ramakrishna Junior Basic School and Sri Ramakrishna Pre-Basic School while the latter runs a library and three educational institutions, namely, Margaret (Sister Nivedita) English School (Higher Secondary), Ramakrishna Junior Basic School and Ramakrishna Pre-Basic Nursery School.

Sandhani Mahila Samiti

The Sandhani Mahila Samiti of Kurseong was established in 1945 for the benefit of local women of all communities. Since 1958, it has been carrying on its welfare activities at the premises of the Brahmo Samaj at Kurseong which includes the running of training classes for weaving, tailoring, embroidery, sock-knitting, carpet making etc. and preparing students for the Lady Brabourne Diploma courses. It gives cash aid to its students and financial assistance to the passed trainees by allotting craft work to them. An annual competition in embroidery and knitting and an exhibition of arts and crafts objects are organized by the Samiti. During the Chinese and Pakistani aggressions, it conducted first aid classes and

supplied knitted garments for the Jawans in collaboration with the local Red Cross Society. It also runs a library and conducts cultural functions from time to time.

Established in 1924 as a registered religious institution, the Sherpa Buddhist Association is situated at Tung Song Basti, Tenzing Norkay Road, Darjiling. In November 1967, it had 102 members on its rolls. Its funds are used to perform an annual puja and to give financial aid to its members when needed. It runs a Buddhist monastery and proposes to erect a school building.

Sherpa Buddhist
Association

The Siliguri Sports Association was started at Siliguri in 1948 with the object of promoting sports, athletics and health-building activities within the subdivision. It is affiliated to the I.F.A. and the West Bengal District Sports Federation while 14 sports organizations of the district are affiliated to it. It runs an inter-club football league meet, the Kiran Chandra Memorial Shield tournament, where different subdivisional teams of North Bengal participate, and the Bhupendra Memorial Shield tourney, another renowned football contest of North Bengal. It also conducts a cricket tournament awarding Abaninath Memorial Shield and Bisvesvar Mukherji Cup to the champions and the runners-up respectively, a volley-ball league competition and an annual sports meet. It also fosters young talents in various branches of sports with the help of coaches deputed by the West Bengal State Council of Sports. The Association has been representing the district in football and cricket for the last few years. The Tilak Maidan (locally called the S.A.A. Ground), the only major play-ground in the town with wooden galleries on its southern side, is maintained by the Association.

Siliguri Sports
Association

The Tsechu Offering Association of Kalimpong, a registered society, was established in 1946 with Buddhists from all races as its members. In actual practice, however, it is *en rapport* with the Red Sect of Buddhists, who follow the Mahayanist philosophy of tantrism preached by Mahaguru Padma-Sambhava. It proposes to encourage the understanding and growth of the faith of that sect, to establish and maintain temples, monasteries, rest houses as also cultural, religious and charitable institutions. At the moment (June 1968), a monastery with an attached language school, which is to be named by the Association as Zang Dog Palri Institute of Tibetology, is under construction at Kalimpong.

Tsechu Offering
Association,
Kalimpong

The Tibetan Refugee Self-Help Centre was started on 1 October 1959 at Hillside, Lebong Cart Road on about four acres of land hallowed by the memory of the Thirteenth Dalai Lama who lived here during his stay in India in 1910-12. In early 1959, many Tibetan refugees streamed into India following the present Dalai Lama who fled his country due to the Chinese occupation of Tibet which necessitated the opening of the Centre. The Centre is managed directly by its President Mrs. Gyalo Thandup with the

Tibetan Refugee
Self-Help Centre

help of a committee of 10 members. In November 1967, there were 247 Tibetan refugees here while many more lived outside in a miserable condition. Some 200 Tibetan children, who used to roam the streets of Darjiling begging, have been admitted to the school opened on this site on 1 June 1960. They are given milk and lunch free of cost and are taught Hindi, English and Tibetan. An evening school is also being run for the other inmates of the Centre.

Some of the refugees, before fleeing their country, were experts in carpet weaving, dyeing, cloth and *nambu* weaving, *pangden* (Tibetan apron) weaving, leather works, painting of Tibetan *thankas* (religious scrolls), tailoring and gold, silver and copper work. Their traditional talents now find fruition in the various workshops run by the Centre.

The organization initially started with funds raised locally through charity shows, football matches, donations etc. which have since been supplemented by equipments, clothes, foodstuff, milk-powder and a cash amount of Rs. 65,000 received from various voluntary agencies. About Rs. 60,000 has already been spent in building the workshops and dormitories and also on cash assistance and food for the refugees.

The Centre is intended to run as a residential training-cum-production centre where a maximum of 300 Tibetan refugees may live, receive training and work. The finished products are marketed in India and abroad and the sale proceeds utilized in meeting the recurring expenses. There is a small hospital with an attached dispensary where the inmates of the Centre as also Tibetan refugees living outside are treated. The Indian Red Cross and many philanthropic organizations and private firms have donated medicines etc. to this unit from time to time. Cultural programmes including dances, music and opera shows are regular features of the institution. Indoor and outdoor games are also played. The District Publicity Officer, Darjiling, exhibits films at the Centre twice a month.

Vivekananda Club

The Vivekananda Club of Siliguri was established in 1948 and registered in 1966. It is primarily an athletic club affiliated to the Indian Football Association and the West Bengal District Sports Federation. It had 310 members on its rolls in November 1967. It runs a library and organizes football, cricket and volleyball games, athletics, cultural programmes and social welfare work. The club also renders financial assistance to the needy and the sick.

Young Men's Association

The Young Men's Association of Siliguri was established in 1946. It has a small library and some arrangements for indoor games. It is affiliated to the Siliguri Sports Association, Darjiling District Athletic Association, West Bengal District Sports Federation

and the I.F.A. It enjoys a reputation in competitive indoor and outdoor games and athletic meets conducted by recognized organizations of North Bengal. It ran the Bhupendra Memorial Shield tournament from 1952 to 1965 before the responsibility was taken over by the Siliguri Sports Association. Charity football games and cultural shows are often organized by the Association and out of their sale proceeds contributions are made to local educational institutions like the Siliguri College, the Jyotsnamoyee Girls' School etc. Social service by way of rendering first aid, nursing the sick and arranging relief to the victims of natural calamities is another objective of the Association.

(Certain other voluntary social service organizations exclusively connected with libraries, museums and literary societies have been dealt with more appropriately in the Chapter on Education and Culture).

O'Malley in his Gazetteer of Darjiling (1907) observed that there was a "Babel of tribes and nations" in the district. He described the local population as "exceedingly heterogeneous" and remarked that "together with these hillmen are found denizens of the plains." The people of his time included what we call Scheduled Caste Hindus of the present day besides people following different faiths as also 'aboriginals' now known as Scheduled Tribes. Dash in his Gazetteer of Darjiling (1947) differentiated plains Hindus from Scheduled Castes and mentioned certain sections of the populace as belonging to different tribes.

ADVANCEMENT OF
BACKWARD CLASSES
AND TRIBES

The following excerpts from the Annual Administrative Report for 1961-62 of the Tribal Welfare Department would reveal the background of developmental work done among these people: "Through long years of alien rule, this important section of people has been lagging behind in the march of progress and smarting under cold neglect. During the British regime scant attention was paid to these backward classes. Certain administrative measures were no doubt taken to safeguard the interests of the tribal people, then known as the 'aboriginals'. With the attainment of freedom, the approach was changed and, apart from enlarging the scope and activities for the welfare of the backward classes, it was decided that the separationist outlook which had characterized the general policy of the British Government should be replaced by a broad-based ideology consistent with the interests of national unity and the best traditions of these people. The Government also recognized that the evil legacy of backwardness must be liquidated as early as possible if India is to survive and grow in strength in the comity of nations. A policy was accordingly formulated with a view to bringing these people to the level of the general population of the country through schemes aimed at their economic, educational and cultural

development.¹ Although a special cell for tribals and backward classes was set up in the State in January 1949, a full-fledged Department of Tribal Welfare began functioning only in 1952. In Darjiling the sporadic developmental activities intended to benefit these people were looked after up to that time by the normal agencies of the District Officer. With an increase in the work-load, a wholetime Tribal Welfare Officer, appointed by the Department on the recommendation of the State Public Service Commission, was posted in the district in 1954 with headquarters at Darjiling. The post, initially non-gazetted, has become gazetted since 1963. But as touring and inspection work in the difficult terrain of the district covering four subdivisions was difficult, it was felt that there should be more departmental officers to look after the welfare of the backward people, who were broadly divided into those inhabiting the hills and the plains. To have the welfare work done more intensively, two more officers designated as Special Officers, Tribal Welfare—one drafted from the West Bengal Civil Service and the other from the West Bengal Junior Civil Service—were posted in 1967 and 1966 respectively in Darjiling and Kalimpong. Presently, a Special Officer, Scheduled Castes and Tribes Welfare, drafted from the West Bengal Civil Service is posted at Darjiling. Another Special Officer, Scheduled Castes and Tribes Welfare, drafted from the West Bengal Junior Civil Service is posted at Kalimpong. There is besides a Scheduled Castes and Tribes Welfare Officer, stationed at Siliguri. All these officers are under the administrative control of the Deputy Commissioner of the district.

The table below gives an indication (which is not exhaustive) of government assistance given to Scheduled Castes and Scheduled Tribes of the district in the spheres of education, agriculture, health, industry etc. during the first three Five Year Plans.

¹ Government of West Bengal, Tribal Welfare Department—*Annual Administrative Report for 1961-62*, Calcutta, 1964, p.1.

GOVERNMENT AID IN SELECTED FIELDS TO SCHEDULED
CASTES, SCHEDULED TRIBES AND OTHER BACKWARD
CLASSES IN DARJILING DISTRICT

Name of scheme	1st Five Year Plan	2nd Five Year Plan	3rd Five Year Plan
	Rs.	Rs.	Rs.
Education	1,11,488	88,432	2,63,407
Medical and public health and water supply	67,302	2,82,277	2,00,559
Co-operative grain-golas	20,000	10,250	97,423
Communication	13,997	4,49,918	1,23,200
Adult education centres and grants to headmen etc.	4,950	87,121	3,000
Cultural and aesthetic activities	45,500	60,400	7,400
Aid to voluntary agencies	94,060	66,108	41,547
Industrial grants	3,000	84,215	1,02,604
Irrigation, land reclamation, animal husbandry etc.	52,282	1,33,129	1,48,925
Free legal aid	46,000	1,203	1,122
House building and house-site purchase grants	46,000	2,01,423	1,06,150

The above consolidated figures cover a number of welfare schemes under each category shown separately in the first column of the preceding table. For instance, 'Education' includes the outlay on tuition fees, book grants, hostel charges, construction and renovation of school buildings etc. The water supply schemes in many cases have connected villages in the Terai region with springs uphill by pipelines. Grants have also been given to several monasteries throughout the district for their maintenance as also to tribal headmen as a token of their recognition by Government. While financial assistance has been given generously to various dispensaries, provision has also been made to reserve beds for patients of backward classes in T.B. hospitals. Annual grants are also made to Ramakrishna Vedanta Asram, Lepcha Association, Bhutia Association and many other social service

organizations of the district for doing welfare work among these backward people. There are also schemes for improving the working conditions of sweepers and for removing untouchability among the Scheduled Castes.

According to the Census of 1951, out of a total of 26,080 Scheduled Caste people in the district, 35.67% were cultivators of land wholly or mainly owned by themselves and their dependants, 27.9% were cultivators of land wholly or mainly unowned by themselves and their dependants, 3.3% were cultivating labourers, 0.35% were non-cultivating owners of land, agricultural rent-receivers and their dependants, 19.5% along with their dependants were mainly engaged in production other than cultivation, 3.47% were employed in commerce, 1.59% were engaged in transport services and 8.15% were engaged in other miscellaneous services. The same Census enumerated that out of a total of 96,444 Scheduled Tribes people in the district, 35.8% were cultivators of land wholly or mainly owned by themselves and their dependants, 19.4% were cultivators of land wholly or mainly unowned by themselves and their dependants, 1.74% were cultivating labourers and their dependants, 0.5% were non-cultivating owners of land, agricultural rent-receivers and their dependants, 33.96% along with their dependants were mainly engaged in production other than cultivation, 1.4% were engaged in commerce, 0.73% were engaged in transport and 6.48% were engaged in other miscellaneous services.

Although the livelihood classification was changed in the 1961 Census, the following figures would reveal the livelihood pattern of these people as obtaining in 1961. In that year, 40.65% of the total Scheduled Caste population of the district were workers. Of them 18.98% were cultivators, 1.89% agricultural labourers, 7.16% engaged in mining, quarrying, livestock, forestry, fishing, hunting, plantations, orchards and allied activities, 2.28% employed in household industries, 1.93% depending on manufacturing industries other than household industries, 0.4% engaged in construction, 1.76% employed in trade and commerce, 0.84% earning their living from storage and transport services and 5.36% from other services. Similarly, among the Scheduled Tribes, of whom 47.85% were enumerated as workers in 1961, 23.24% were cultivators, 1.19% were agricultural labourers, 16.93% were engaged in quarrying, livestock, forestry, fishing, hunting, plantations, orchards, and allied activities, 0.66% depended on household industries, 0.16% lived on manufacturing industries other than household industries, 0.1% were in construction, 1.05% were employed in trade and commerce, 0.2% in storage and transport services and 4.28% in other services.

It appears from the 1961 Census that 22.24% of the Scheduled Caste population of the district were literate. Thus, next to Calcutta, Darjiling has the highest literacy rate among Scheduled

Caste people. Among the male Scheduled Caste population, 33.11%—being the highest figure in the State—is literate. Next to Calcutta, Darjiling has also the highest literacy rate among Scheduled Caste females (10.23%). Among the Scheduled Tribes, the literacy rate is as high as 15.32% (which is next to Calcutta); the share of the male and female counterparts being 23.40% and 6.38% respectively. The following table¹ prepared by the Cultural Research Institute, Government of West Bengal, reveals the number of selected Scheduled Tribe students reading in the district in the Secondary stage between 1958-59 and 1960-61.

DISTRIBUTION OF SELECTED SCHEDULED TRIBE STUDENT
IN DARJILING DISTRICT : 1958-61

Name of tribe	Expected No. of school going students in Secondary stage	Actual No. of students in Secondary stage					
		1958-59		1959-60		1960-61	
		No.	%	No.	%	No.	%
Santal	313	17	1.30	14	1.03	12	0.82
Oraon	1,549	143	10.92	191	14.01	223	15.26
Munda	518	24	1.83	37	2.72	33	2.26
Kheria	10	3	0.23	6	0.44	2	0.14
Bhutia	1,298	732	55.92	703	51.58	754	51.61
Garos	—	1	0.08	4	0.29	5	0.34
Lepcha	1,185	382	29.18	397	29.13	421	28.82
Mahali	59	2	0.15	—	—	—	—
Mech	20	3	0.24	8	0.59	8	0.55
Hajang	—	2	0.15	1	0.07	1	0.06
Kora	3	—	—	1	0.07	—	—
Nagesia	37	—	—	1	0.07	2	0.14
Total :	4,992	1,309	100.00	1,363	100.00	1,461	100.00

1. A. K. Das and S. K. Banerjee.—*The Lepchas of Darjeeling District*. Calcutta, 1962. p.841.

The following table would give an idea of the spread of education among selected Scheduled Tribe students in the district in the post-Secondary stage between 1958-59 and 1960-61.¹

DISTRIBUTION OF SELECTED SCHEDULED TRIBE STUDENTS IN
DARJILING DISTRICT : 1958-61

Name of tribe	Actual No. of students in post-Secondary stage (estimated)						Proportion of stu- dent actually atten- ded to expected No. of students		
	1958-59		1959-60		1960-61		58-59	59-60	60-61
	No.	%	No.	%	No.	%			
Santal	—	—	—	—	—	—	0.05	0.04	0.04
Oraon	—	—	—	—	—	—	0.09	0.12	0.14
Munda	—	—	—	—	—	—	0.05	0.07	0.06
Kheria	—	—	—	—	—	—	0.30	0.60	0.20
Bhutia	67	72.04	59	68.60	48	76.19	0.56	0.54	0.58
Garos	—	—	—	—	—	—	—	—	—
Lepcha	22	23.66	24	27.91	15	23.81	0.32	0.34	0.35
Mahali	—	—	—	—	—	—	0.03	—	—
Mech	4	4.30	3	3.49	—	—	0.15	0.40	0.40
Hajang	—	—	—	—	—	—	—	0.33	—
Kora	—	—	—	—	—	—	—	0.03	0.05
Nagesia	—	—	—	—	—	—	—	—	—
Total	93	100.00	86	100.00	63	100.00	0.26	0.27	0.29

From an assessment made by the Cultural Research Institute, Government of West Bengal, it appears that in 1962, 7,414 Scheduled Caste students, 3,680 Scheduled Tribe students, and 40,123 students belonging to other communities, each forming 9% of the population of each category, were expected to be in school in the Secondary stage. But the actual number was 1,173 of Scheduled Castes, 1,598 of Scheduled Tribes and 13,302 of other

¹ *Ibid*, p. 145.

communities, thus forming 15.82%, 18.18% and 33.15% respectively of the expected number of students in the Secondary stage.¹

In order to assess the response of the backward classes themselves to the various welfare measures introduced in the district for their benefit, the following excerpt² from a recent field survey conducted among the Lepchas of the district are worth quoting : "50% of the sample population appear to be aware of the existence of the majority of the tribal welfare schemes. It is clearly visualised that the knowledge of awareness of change and development is closely related to the status and education of a person. ...It means that the modern media of mass communication (such as publicity etc.) have yet to play a proper role in the interior villages. This is important because the schemes cannot be expected to reap the full crop of utility and usefulness unless the people are sufficiently made aware of these and their needs and problems made known to the administrators. ...A majority of the people have expressed that their economic condition has either gone down or remained where it was during the last two successive plan periods. A fair number of them are of opinion that welfare schemes could not help to raise their economic status. The sites of the schemes chosen are in their opinion often in wrong places and the people want more of these schemes in suitable places to be decided after proper consultation with them and that there should be no direct contribution from them. ...It is essential to make people feel interested in the schemes by means of various publicity measures at the very beginning of a scheme."



¹ A.K.Das, B.K.Roychoudhury and M.K.Raha—*Handbook on Scheduled Casts and Scheduled Tribes of Bengal*. Calcutta, 1966. p.220.

² A.K.Das and S.K.Banerjee—*The Lepchas of Darjeeling District*. Calcutta, 1962. pp.152-53.

CHAPTER XV

PLACES OF INTEREST

ADHIKARI—Situated at the south-west corner of the district in Kharibari police station and at a distance of 28 km. (17½ miles) from Siliguri with which it is connected by a metalled road, Adhikari is mainly known for its Sunday market (*hat*), established in 1944 and managed by the Darjiling Improvement Fund. It handles large quantities of rice, vegetables, cattle and fish, a sizable portion of which is imported from the area around Bhadrapur in Nepal, 10 km. away, and passed on to various consuming centres in India. Religious festivals like *Kalipuja*, *Adhikari Babu's Utsav* and *Siva-ratri* are celebrated here in October, February and March respectively.

ALGARA—A village about 5,800 feet above sea-level in Kalimpong police station, with a population of 700 in 1961, it has a 20-bed State-managed rural health centre. It is the headquarters of N.E.S. Block Kalimpong No. 2 and is connected with Kalimpong, 16 km. away, by a metalled road. Its main attraction is the Sunday market, maintained by the Darjiling Improvement Fund, which deals in cardamom, ginger, potato, maize, millet, vegetables, poultry and orange and is a busy centre of trade with Sikkim and Bhutan.

BADAMTAM—A place in Badamtam Tea Estate (which had a population of 2,925 in 1961) in Darjiling police station, it is situated 14 km. away from Darjiling on a metalled road that proceeds to Manjitar on the Great Rangit. The State Archaeological Directorate claims to have found some ancient relics near Charee in the vicinity of Manjitar.

Connected by a motorable road off Badamtam, Manjitar is a fine picnic spot by the Great Rangit which takes a mighty bend here amidst picturesque mountain scenery. The place offers scope for fishing and hunting and has a big suspension bridge on the Great Rangit (which is also one of the highest of its kind in India) connecting Darjiling district with Rangit Bazar on the Sikkim side.

BENI—Also named as Tribeni, it is a place in Rangli-Rangliot police station, situated at the confluence of the Tista and the Great Rangit, 72 km. from Darjiling and 11 km. from Tista Bazar. It is famous for the annual fair held on the *Pous Samkranti* day (December-January) which lasts for three days and attracts huge crowds of devotees who come to propitiate *Tistamai* (the Tista river goddess) by making animal sacrifices. A big fair is held on the occasion which is visited, amongst others, by traders from Nepal who sell *rari*, a kind of coarse blanket woven from local wool. The two rivers here abound in Indian trout, *mahseer*, *katla* and *goonch*.

DALING—A place in Gorubathan police station, situated 3,565 feet above sea-level in the foothills of Ambeok forest, 3 km. uphill from Ambeok *basti*, 10 km. from Gorubathan market and 100 km. from Kalimpong *via* the Coronation bridge, it can be reached by vehicles passing through Ambeok *basti* on the Gorubathan-Labha metalled road. Its principal attraction is a ruined Bhutanese fort overgrown with jungle, 3,350 feet above sea-level overlooking the Duars.

DAMSANG—Situated at an elevation of 6,000 feet, Damsang, in Kalimpong police station, lies 6 km. north of Algara from where it can be approached by a bridle-path. It contains an old fort of Bhutanese origin.

DARJILING TOWN—Headquarters of the district and of the Sadar subdivision of the same name, it is located at 27° 3' North latitude and 88° 18' East longitude. It is situated on the long spur, projecting northward from the Senchal-Singalila range, which rises abruptly from Ghum to a height of 7,886 ft. at Katapahar and then descends to 7,520 ft. at Jalapahar and to 7,002 ft. at the Chaurasta, rising again to 7,163 ft. at the Observatory Hill, dividing itself into two, the Lebong spur and the Takvar spur which descend to the valley of the Great Rangit at an elevation of 3,000 feet from sea-level. The town contains the usual Government establishment and a number of hotels catering to the needs of the heavy tourist traffic frequenting this "queen of hill stations" once between April and June and again between September and November each year.

Being the northern terminus of the Darjiling-New Jalpaiguri section of the North-East Frontier Railway (Darjiling—Himalayan section—narrow gauge of 0·610 metre), it is 87 km. (54 miles) by rail from New Jalpaiguri and about 79 km. (49 miles) by road from Siliguri. Baghdogra, the only airport in the district, is 18 km. (11·2 miles) away from the latter place.

Standing on a narrow ridge, jutting into the heart of the Himalayas, the town affords fine views to the west and south, enclosed by higher mountains, and to the north and north-east, where range after range appear in ascending waves culminating in the magnificent snowy peaks of the Kanchanjanga range filling the northern horizon. Kanchanjanga, the highest peak in the range, literally means "the treasure-house of five glaciers" in Tibetan and is situated at a distance of 72 km. (45 miles), as the crow flies, from Darjiling town and soars to a height of 28,146 feet, being the third highest peak in the world.

A municipal town, having 13 wards and spread over 4·08 sq. miles, Darjiling has a population of 42,662 according to the 1971 Census.

With a meandering road leading from the Chaurasta to its top, the Observatory Hill, now the seat of Mahakal, a manifestation of Siva, formerly had a Buddhist monastery at the same site which was destroyed by the Gorkhas when they overran the place early in the 19th century. Though reconstructed later, it was eventually shifted to Bhutia *basti*, lower down the hill, where the present Bhutia monastery stands. Both Hindus and Buddhists pay homage in the temple to *Mahakal* the precincts of which display numerous bamboo poles with multi-coloured prayer flags fluttering from them.

On a clearance at the base of the Observatory Hill is laid out the Victoria Park, which overlooks The Mall, the most favourite spot for taking the daily constitutional or to pass one's leisure in the company of friends and acquaintances. Popularly called the Chaurasta, the Mall is the most patronized meeting place in the town.

Situated below the bazar on forty acres of land, divided into three main parts, namely an upper area where indigenous plants are nurtured, a lower portion where many exotic species from temperate zones of the world are grown and preserved and a section containing assorted flora of the Eastern Himalayas, Eastern India, North-Western India etc. can be found in the Lloyd Botanic Gardens so named after Mr. W. Lloyd, one-time proprietor of the Lloyd's Bank of Darjiling, who donated the site in 1878. A detailed description of the park has been given elsewhere in this volume.

At a short distance to the south are the Victoria Falls, where the Kaghora, a small stream draining a ravine above, hurtles down to the reservoir of the electric power station below. During the rains the pretty cascade having a sheer drop of 80 feet may be seen from the ornamental ferroconcrete bridge that spans its lower course just below the drop.

Apart from some privately-run botanic gardens, the Mayapuri Botanical Laboratory maintained by the Bose Institute is worth mentioning because of the remarkable researches that were conducted there by Acharya Jagadish Chandra Bose on various aspects of plant life.

About a mile and a half from Chaurasta stands the Birch Hill, on the slopes of which is located the Himalayan Zoological Park, the open-air zoo of the town. The eminence retains some of the original silvan beauty of the mountains with its gnarled and stately trees. The zoo acts as a centre for preservation and propagation of rare fauna of the temperate and Alpine regions. A pair of Ussuri (Siberian) tigers presented by Khrushchev, ex-Premier of U.S.S.R., and the litter of cubs are the most prized possession of the zoo. There are also a few Himalayan

black bears and Himalayan pandas. A male Musk-deer, usually found in Central and North-Eastern Asia at elevations up to 12,000 feet, was presented to the Park by the king of Bhutan. It is a rare animal on the point of extinction because of the commercial value of its musk. A pair of gorals represents another rare species. Among other inmates of the zoo are a few llamas, several gorgeous monal or Impeyan pheasants found between 7,000 and 15,000 feet in the Himalayas, and some blood pheasants available in the Sandakphu-Phalut area of the district. The zoo attracts a large number of visitors.

The road to the Himalayan Mountaineering Institute campus passes through the Birch Hill Zoo. The institute, the only one of its kind in Eastern India, was established in 1954 in the wake of the conquest of Mount Everest by Tenzing Norgay and Edmund Hillary in 1953. It affords basic, advanced and adventure training courses in mountaineering to pupils drawn from the Indian army as also from other walks of life. A grand view of the Kanchanjanga massif may be had through the powerful telescope in the possession of the Institute, which also has a well-equipped museum displaying through equipment, photographs and charts the different aspects of mountaineering, and a library with books on allied subjects.

Apart from the memorials in the Hindu cremation ground built on the ashes of Sister Nivedita of the Ramakrishna Order, who died here in 1903, and of Rahul Sankrityayana, the noted Indologist, who died some years ago, other important tombs are to be seen in the Christian Cemetery below Birch Hill, where lie General Lloyd, the discoverer of Darjiling who died here in 1865, and Csoma de Koros, the noted Hungarian philologist. On the latter's grave the Asiatic Society of Bengal has fixed a memorial plaque which reads: "one whose life-long aim it was to prove by philological researches that the nomad races from whom the Hungarians are descended came from Tibet. When a young student, he begged his way across Asia and spent many years in a Tibetan monastery, composing a great dictionary and grammar of the Tibetan language. On his way to Lhasa to resume his labours, he died at Darjiling in 1842."

Housed in a Government building above the place called Meadowbank, the Darjiling Natural History Museum contains varied collections of mammals, birds, butterflies, fishes, insects, snakes etc. found in the district and its environs. It also publishes a quarterly journal and has a small library of its own.

Located on an eminence about 3 miles from the town and flanking the Lebong Road, the Tibetan Refugees' Self-help Centre covers about 4 acres of land and is financed by several international philanthropic institutions. It houses many Tibetan refugees who fled their country after its occupation by China. True to the

spirit which the name of the institution signifies, they have been earning their living by making carpets, shoes, head-gear, wooden and metal articles etc. which have an international market.

Apart from the temple of Mahakal atop the Observatory Hill, there are a number of Hindu temples in the town. The Dhirdham temple with Pasupatinath as the presiding deity was built in 1938 near the railway station by the then Prime Minister of Nepal. It resembles the famous Pasupatinath temple of Nepal and has architectural beauties of its own. Gopal Mandir, Sani Mandir, Bara Thakurbari and Chhoto Thakurbari are other temples containing images of different Hindu deities. The Ramakrishna temple in the premises of the Ramakrishna Vedanta Asram attracts many visitors.

The Samten Choaling monastery in the outskirts of the town, the Nepali Tamang monastery in the Judge Bazar and the monasteries at Bhutia *basti* and Alubari are some of the Buddhist shrines of the town belonging either to the yellow-hat or red-hat sects of Lamaism and contain, besides Buddha images, profuse illustrations of Buddhist beliefs and legends on their walls.

There are two mosques in the town maintained by the local Anjuma i-i-Islamia, namely, the Juma Masjid at Daroga Bazar and the Chhoti Masjid at Butcher *basti*.

The Brahmos of the town have a temple of their own on Laldighi road built in 1919. It replaced the older temple which had been set up in 1888. The present building was constructed out of donations received from members of the public and from the late Hemlata Sarkar, herself a Brahmo and the eldest daughter of Pandit Sivanath Sastri.

Among the numerous Christian churches that of St. Andrew's, belonging to the Church of England and built in 1870 at the site of the first church in Darjiling, the foundation stone of which was laid on St. Andrew's Day in 1843, is worth a special mention as the inlaid memorial tablets within it give an early account of the town. St. Luke's Church at Jalapahar, first built in 1867 but later dismantled and replaced by the present one and the chapels attached to St. Paul's school and Darjiling Government College are some of the other beautiful churches. The Church of Immaculate Conception adjacent to the Loreto Convent and St. Michael's church add to the list of local churches.

There are two Degree colleges and eight High or Higher Secondary schools in the town besides a number of Junior High and Primary schools, the details of which have been given in the chapter on Education and Culture.

The former Eden Sanatorium is merged with the Victoria hospital, which now serves as the District hospital with 208 beds. There is also a State managed T.B. Hospital and an infectious diseases hospital run by the municipality.

A portion of the 'Step Aside', the house in which Desbandhu Chittaranjan Das died in 1924—is now used as a maternity and child welfare centre and is worth a visit. The Government House on the Mall Road, the palace of the Maharajadhiraj of Bardhaman at Rose Bank and that of the Maharaja of Koch Bihar at Colinton are other important edifices in the town.

Situated on an extensive level ground in the heart of the town, the Market Square houses numerous shops and several bazars, which present a scene of great animation on Saturdays and Sundays when crowds of people from tea gardens as also from the town itself converge there to make their purchase.

Situated 5,970 ft. above sea-level in Darjiling police station, Lebong derives its name from the Lepcha word *Alibong*, meaning 'the tongue-shaped spur'. The spur on which it lies resembles, in fact, a tongue thrust out from the ridge on which Darjiling stands. With its less severe climate, it was one of the foremost places in the district attracting early European settlers. It houses a cantonment of the West Bengal Sub-area Command and a power station. The small race course here enjoys the reputation of being the highest in the world.

GHUM—A small township in Jore Bungalow police station, 6.4 km. (4 miles) south of Darjiling town, it is situated at an elevation of 7,400 feet on a narrow saddle connecting the Senchal range with the Darjiling spur. Its position in a gap between the hills makes it an extremely rainy, misty and wind-swept place. It has a railway station on the New Jalpaiguri-Darjiling section of the North-East Frontier Railway which, standing at a height of 7,407 feet, is supposed to be the highest railway station in India. It is an important trade centre, being located at the junction of three main roads, namely, the Cart Road from the plains, the road to the Tista Valley and Kalimpong via Pashok, and another road proceeding through Sukhiapokhri and Simana Basti to the Nepal border. There is a charitable dispensary here and the township receives its water supply from the Darjiling water supply installation on the neighbouring Senchal hill. It has a military depot for recruiting Gorkhas both for the Indian as well as the British army. The old Buddhist monastery here displays many colourful frescoes on its walls and houses a colossal Buddhist image (as also other minor icons) and a large number of Tibetan manuscripts. Ghum is still well-known for manufacturing *Kukris* (Nepali knives), but Dash reported in the old Darjiling District Gazetteer of 1947 that the manufacturing process was very primitive and the annual output was about 2,700 *kukris* valued at Rs. 7,000. Being situated on a transport node,

Ghum is also an important centre of trade for oranges, cardamoms, potatoes etc. Four miles to the west along the road to Sukhiapokhri there is a spectacular natural curiosity in the form of an enormous detached rock, standing one hundred feet clear from which a magnificent long-profile view can be had of the Balasan valley. Local legend has it that when the hill tribes ruled this area, criminals used to be executed by being hurled from this rock.

The Senchal eminence is 8,163 feet high and 9.6 km. (6 miles) south-east of Darjiling town and 3.2 km. (2 miles) south-east of Ghum. Just above it, a peak known as Tiger Hill rises to a height of 8,515 feet and further to the south-east is West Senchal at an elevation of 8,600 feet. The meaning of the Lepcha word *senchal* is "the hill of damp and mist", the appellation being well-deserved, for the place faces the full brunt of the monsoons driving up the foot-hills from the south, and for the greater part of the year it is enveloped in mist or drenched by rains. In the early days of Darjiling, it was chosen as a site for a military cantonment which existed here from 1844 to 1867. The Cantonment was removed to Jalapahar which, at an elevation of 1,000 feet less, had a more bracing climate.

The road to Senchal winds through magnificent forests of oak, magnolia and rhododendron with an occasional waterfall tumbling down the hill. There is a dak bungalow here at an elevation of about 8,000 feet which is maintained by the Darjiling Improvement Fund. Apart from being a picturesque picnic spot, Senchal houses a wild life sanctuary with numerous birds and animals. The two catchment reservoirs of the Darjiling water-supply system that are located here can store up to 20 and 12.5 million gallons of water which is collected from several perennial hill-springs nearby.

The road to Senchal passes on to the summit of Tiger Hill where, at a height of 8,515 feet is a dak bungalow, a restaurant and a micro-wave transmitting station. There are also ample grounds in the courtyard for parking cars. Tourists from all over the world visit the spot to have a magnificent view of the snowy Himalayan peaks and of the very colourful sun-rise on clear days. O'Malley, in the old Darjiling District Gazetteer of 1907, gave an account of the place which is worth quoting : "The summit commands a fine view of the plains of India, of the mountainous spurs sinking to the level plains, and of the courses of several great rivers, the Tista, Balasan, Mahanadi and Mechi. To the north the prospect is far grander. In the foreground is the great valley of the Rangnu, 4 miles across and fully 4,000 feet deep, which is formed on one side by the Darjiling ridge, bare of forest and scarred by land-slips, and on the other by the forest-clad Takdah range. Beyond this valley is a line of snowy mountains stretching across the horizon. In the centre is the massive bulk of Kinchinjunga 45 miles distant (28,146 feet), flanked on the right by the tent-like

Kabru (24,015 feet) and the more graceful Kumbhakarna (Jano) (25,300 feet), and on the left by the sharp conical peaks of Pandim (22,020 feet) and Narsingh (18,145 feet). To the north-east, Chumalhari or Chomo Lahri (23,933 feet) is seen, at a distance of 82 miles, rearing its head as a great rounded mass over the snowy Chola range, though it really lies 40 miles beyond. To the north-west again, at a distance of over 100 miles, three snowy peaks just appear above the black Singalila range, the middle one of which is Mount Everest. The great distance, however, makes it appear of miniature dimensions, and as a peak it is completely dwarfed by the larger mountains of Sikkim."¹ A golf course has recently been opened on the Senchal plateau.

GOKH—A place 3,000 feet above sea-level, it is situated on the left bank of the Little Rangit river in Pulbazar police station. It is a centre of trade between West Bengal and Sikkim and the rest of India, and can be reached on foot from Pulbazar, 20 miles away, or from Darjiling along a motorable road. It is famed for a type of white clay similar to china clay. The place was used as an encampment of British troops during the Anglo-Sikkimese war.

JALDHAKA—This is a valley, 1,500 feet above sea-level and a prospective tourist resort, in the hill section of Gorubathan police station. It is cut off from the rest of the district by a mountain ridge descending south-east from Richi-La and is separated from Bhutan by the De-chu or Jaldhaka river. It can be reached from Kalimpong, 135 km. (84 miles) away, along National Highways Nos. 31 and 31A after crossing the Coronation Bridge and touching Batabari Tea Estate, Jhalung (*via* Kumari Forest) and Gairibas on the way. The State Transport buses from Siliguri ply only up to Jhalung. The West Bengal State Electricity Board controls the Jaldhaka hydel project which came into operation in 1967.

KALIMPONG TOWN—Headquarters of the subdivision of the same name, Kalimpong is situated on 26° 51' North latitude and 88° 28' East longitude at a distance of 51 km. (32 miles) from Darjiling *via* the Pashok Road and 67 km. (42 miles) from Siliguri *via* National Highway No. 31A, the Sikkim frontier on this route from Kalimpong being 26 km. (16 miles) away. While the bazar area of the town is 3,933 feet above sea-level, it is flanked on either side by higher grounds, on the south by Durbindara hill, 4,500 feet above sea-level and on the north-east by the Deolo mountain with an elevation of 5,564 feet.

¹ L.S.S.O'Malley—*Bengal District Gazetteers : Darjeeling*. Calcutta, 1907 pp. 208-09.

A municipal town spread over 3.35 sq. miles, Kalimpong has a population of 23,745 persons according to the 1971 census. It has been getting its electricity, since 1938, from a private company and water supply from the waterworks maintained by the State Public Health Engineering Department. As a subdivisional town it has the usual government offices, the office of the subdivisional Officer (first posted there in 1917) being located in a building re-constructed in 1939 after the old one was destroyed by storm and earthquake. Formerly connected by road with Giellekholah station, 18 km. (11 miles) away, on the Darjiling-Himalayan Railway, which was wiped away by landslides in 1950 and thereafter abandoned, and one-time terminus of the mule trade route between India and Tibet *via* the Jelep *la* (pass), about 105 km. (66 miles) to the north-east, and at present connected by asphalt roads with Darjiling and Siliguri, the town has three distinct parts. The first contains the Church of Scotland Mission and St. Andrew's Homes on the lower slopes of the Deolo mountain down to Rishi Road and the bazar proper (consisting of scattered but well-built houses, some of which lie hidden in the wooded hill-side); the second is the market area with close-knit houses on Rishi Road; and the third is the Development area rising along slopes to the Durbindara hill with well-spaced civil and military buildings amidst trees and gardens.

There are 5 High or Higher Secondary Schools of which 3 are for girls, a Degree College sponsored by Government, 2 Senior Basic Schools, 8 Junior High Schools, 5 Junior Basic Schools and 13 Primary Schools. Apart from a number of other institutions figuring in the entry preceding the present one, Dr. Graham's Homes, although described more fully elsewhere in this volume, is worth a special mention here, it being a unique educational institution of the district. Details of other academic and cultural institutions in the town, including a Basic Training College, a library attached to the said College and a craft-teachers' training centre called Chitra Bhanu have also been given in the Chapter on Education and Culture.

The local Post Office has a telegraph section and an automatic telephone exchange attached to it. Branches of the State Bank of India and a private bank also operate here. The Charteris Hospital, opened in 1893 and maintained by the Church of Scotland Mission, functions as the subdivisional hospital besides training Nepali, Lepcha and Tibetan girls in nursing and midwifery. A State Veterinary hospital and an arts and crafts industrial co-operative society are there in the town.

It was Dr. Graham who first inaugurated a fair in 1891 to boost the trade of the place. According to O'Malley that used to be the chief event of the year to the cultivators of the entire neighbourhood who, around 1907, celebrated the occasion on a two days' holiday and flocked to the fair for making purchases and enjoying

the athletic sports. At that time traders from distant Nepal, Sikkim, Bhutan and even Tibet brought their merchandise and got a ready market. The fair still continues under Government management and is held sometime during the Durga puja holidays and continues for three days.

A number of churches and graceful buildings add beauty to the town. Dr. Graham's Homes with its clock tower is worth a visit. The imposing building of the Tibetan trade agent in that area as also the residence, by Rishi Road, of Sonam Tobgye Dorji Deb Zimpan, former king of Bhutan, in which the Dalai Lama took shelter in 1949 on his flight from Tibet, are important landmarks. The Buddhist monastery in the market area, the Hindu temple, the Muslim Mosque, the fine Gothic church of the Church of Scotland Mission, commemorating the death of the Rev. W. Macfarlane, the pioneer missionary of the Church of Scotland in this region who died here in 1887, and the beautiful chapel of the Graham's Homes, built in memory of Mrs. Graham, are some of the imposing buildings of the town. The Victoria Memorial near the bazar with its handsome open porch of Tibetan design and pillars and cornices carved by Lamas from Sikkim still retains its old-time charm.

The Bankim Chandra Chatterjee Park, christened as such in 1951, is a rendezvous of picnic parties as it is full of scenic beauty. The garden house of *Adambrae*, former residence of the S.D.O. commands in the clear mornings of winter a glorious view of the Kanchanjangha Peak of the Himalayas. Indeed, Kalimpong Town may be aptly designated as the *Princess of Hill stations* for its salubrious climate and colourful scenery.

A number of co-operative societies functioning in the fields of sericulture, floriculture, handmade paper industry, wool-knitting, etc. have been doing good work in the town and its environs, deriving inspiration from the time-honoured Kalimpong Arts & Crafts Industrial Co-operative Society. The newly-started Tibetan Refugee Self-help Centre earns a good amount of foreign exchange through its sales of Lepcha *Dari* (garments), hand-bags, utility bags, carpets, table mats, etc.

KURSEONG TOWN—Headquarters of the subdivision of the same name, Kurseong, situated on 26°53' North latitude and 88°17' East longitude at an elevation of 4,860 feet above sea-level, is 32 km. (20 miles) from Darjiling town *via* the Hill Cart Road, and has a station of the same name on the New Jalpaiguri-Darjiling section of the North-East Frontier Railway (DH Section.) It is debarred from a good view of the snowy mountains to the north except through a gap between the Ghum ridge and the Senchal spur. But the loss of the northward aspect is amply compensated by the magnificent view of the plains to the south.

It has been suggested that 'Kurseong' is a corruption of the Lepcha word *Kurseon-rup*, which means the small white orchid flowering abundantly in April and May around the town. Another suggestion is that 'Kurseong' refers to *Kur*, a Lepcha word for cane, which was once prolific here and now can be found in the neighbouring forests, and *Shoang*, meaning a stick in the same language.

A municipal town with 6 wards spread over 1.95 sq. miles, Kurseong has a population of about 15,000 persons according to the 1971 census. As a subdivisional headquarters it has the usual complement of Government offices.

Apart from the Victoria Boys' High School, the Dowhill Girls' High School and a polytechnic school, the town has many other educational, cultural and religious institutions. These are the Jesuit Church, St. Helen's Convent of the Daughters of the Cross, St. Margaret's Orphanage for hill children, St. Mary's Seminary for the training of the Roman Catholic Jesuit priests and the Goethals Memorial School. The premises of the Mahatab Club, established in 1909 to house a club for Europeans only, are being used since 1961 as the Kurseong Station of the All India Radio broadcasting programmes mostly for Nepali-speaking people of the neighbouring areas. Details of other educational and cultural institutions will be found elsewhere in this volume. At Giddapahar (vulture's hill) in the vicinity, there is a house formerly owned by Sarat Chandra Bose, elder brother of Netaji Subhas Chandra Bose, where the latter was interned before being transferred to Calcutta wherefrom he secretly escaped to Germany *via* Kabul. Local people claim that the plan for the historic escape was finalized in that house.

Kurseong has a Subdivisional Hospital with 59 beds besides the S. B. Dey T. B. Sanatorium and the Railway Health Unit.

But for a gap between the Ghum saddle and the Senchal spur through which the peaks of the Kanchanjungha massif can be seen, the said barriers largely restrict the view to the north. The Nagari spur, however, starting at Jorepokhri and stretching down to the Balasan river, is picturesque, and the hillsides all around are covered with emerald tea plantations. On a clear day if one stands on the Eagle's Crag or the ridge towards 'Constantia' or on the Hill Cart Road from the railway station to Giddapahar, one can have a grand view of the southern plains. To the south-east, the Tista flows through dense forests at the foot of the hills till it widens out near Jalpaiguri. The Balasan flows below Kurseong, and further away, the panoramic view of the Mechi, dividing India from Nepal, as also of the Mahanadi is among the beautiful sights to be obtained from the town.

At Fazi, 8 km. (5 miles) from Kurseong town, the Kurseong Hydroelectric Power Station generates power from a stream flowing into the Balasan river. Established in 1933, it is one of the oldest units in West Bengal producing hydel power.

Taking its name from the *tun* tree (*Cedrela toona*), Tung lies on the Hill Cart Road, 8 km. (5 miles) north of Kurseong and has a station of the same name on the New Jalpaiguri-Darjiling section of the North-East Frontier Railway. An Industrial School, established here by the Irish Christian Brothers and now run by the State Government, imparts training in smithy and other crafts.

LAMAHATTA—A place, 5,000 feet above sea-level in Rangli Rangliot police station, 24 km. (15 miles) from Darjiling on the Pashok Road and having a rehabilitation centre for Khampa Tibetan refugees in a two-storeyed building standing amidst 12 acres of grounds. The inmates grow exotic Tibetan barley and indigenous beans, potatoes, maize and millet and engage themselves in dairy-farming. They also make noodles, *phing*—(a Tibetan delicacy made from lentils), *gobu* (steamed wheat-bread), and weave carpets and knit thick Tibetan sweaters—all on a co-operative basis under the Chushi Gangdruk Association. There is a senior basic school, two primary schools, a rural library and a co-operative grain storage unit of local tribals here.

LATPANCHAR—A place, 4,000 feet above sea-level, in Kurseong police station, occupying the north-eastern part of Kurseong subdivision which can be reached by a 13 km. (8 miles) long motorable road branching off from the Sevok-Kalimpong highway at Kalijhora. It is the headquarters of the biggest division of the Mangpu cinchon a plantation, the other division being at Selpu in the neighbourhood. Also an ipecac-growing area, the plantation has a rest house, many attractive walks in the neighbourhood and a transparent lake named Nambong (Namthing) on the top of the ridge. The road to Ghaletar and Bagora runs through Latpanchar and Sittong forests and that *via* Selpu descends to Riyang and Tista through extensive orange gardens. A day's trek also brings one to Sukna on the Hill Cart Road through the Mahanadi game sanctuary.

LABHA—About 16 km. (10 miles), as the crow flies, east-northeast of Kalimpong, Labha is situated within the Kalimpong police station at an elevation of 7,200 feet and has a population of 203 according to the 1961 census. There is a fairly important bazar here, the annual turnover of which, according to Dash, was about Rs. 4 lakhs in 1947. It is connected with Kalimpong town by a road, 32 km. (20 miles) long, passing through Algara and by another linking it with Gorubathan. Placed amidst picturesque surroundings (various luscious plants knocking against each other all around, iridescent orchids growing on the moss-coated branches

of aged trees, and colourful birds chirping in green bushes that lie at every bend of the roads), the place has the potential of developing as a tourist resort of no mean order.

MAHANADI WILD LIFE SANCTUARY—Situated in the Kurseong Forest Division, not far from the Bagdogra airport, the Mahanadi Wild Life Sanctuary can be conveniently reached from the nearest rail-head Sukna on the New Jalpaiguri-Darjiling section of the North-East Frontier Railway. It sprawls over 127.22 sq.km. (49.12 sq. miles) of reserved forest and was started in 1955 as a game sanctuary mainly to protect the Indian bison which was then facing severe threats of extinction. In 1959, its name was changed to that of a Wild Life Sanctuary in pursuance of the recommendation of the Indian Board for Wild Life following the all-India pattern in this behalf. With the Mahanadi river flowing through it, the sanctuary is bounded on the east by the Sevok-Kalimpong Road, while the Hill Cart Road from Siliguri to Darjiling passes through it on the west. It comprises more or less equally the forests of the plains and those of the foot-hills up to an elevation of about 2,500 feet.

The flora and fauna of the sanctuary have been described in an official publication¹ as follows: "it (the flora) varies from riverain forests of tree colonisers like *Khair-Sissoo-Simul* to edaphic-biotic climax of gregarious *Sal*. The monotony of gregarious *Sal* is broken by dry mixed and wet mixed forests containing *Sal* in various proportions. The variations in altitude and crop have naturally influenced the composition of wild life. ...*Bison*, *spotted deer*, *tiger* and *elephants* comprise the main fauna in the sanctuary. *Barking deer* are also fairly common. *Wild dogs* too have been spotted, but it is rather difficult to specify their actual locality. *Jungle cats*, *leopards*, *cats*, *civet cats*, *porcupines* and *scaly ant-eaters* are other animals worthy of mention. Recently, *baboons* and *black capped langurs* have been introduced in the Sanctuary and now find company with *red-faced* and *black-faced monkeys*. *Jungle fowl*, *pea fowl*, *pigeons* and *doves* are common feathered games, in association with birds like *herons*, *egrets*, *storks*, *king-fishers*, *rollers*, *swifts*, *barbets*, *wood-peckers*, *swallows*, *babblers*, *thrushes*, *warblers*, *robins*, *orioles*, *drongoes*, *sunbirds* and *flower peckers*—to name some only of a host of feathered specimens. In association with the existing plant community which comprises primarily of tree growth, there does not appear to be any difficulty in the propagation of Indian bisons and elephants, but wide grassy areas being rather uncommon, the grass-favouring species like deer remain more or less confined to the riverain areas of the Mahanadi where growth of the vegetation tends to be rather thin."

¹ P. Guhathakurta—'Mahanadi Wild Life Sanctuary' in the *West Bengal Forests Centenary Commemoration Volume*, published by the Forest Directorate, Government of West Bengal. Calcutta, 1966. pp. 245-46.

To help the growth of herbivorous animals, "several glades have been created at convenient spots within the Sanctuary. These glades also have artificial salt licks and are cultivated with agricultural crops and palatable forest seedlings for the benefit of the herbivorous animals, whose search for food is no less tiresome than of the carnivores. All over the Sanctuary, artificial water troughs have been made to augment the water supply which becomes very scarce in dry months except for the stream of water through the river Mahanadi. A natural salt-lick, on the fringe of a stream, does not attract many animals now for its inadequate subsoil stock of salt and dry nature of the stream during winter months. The Sanctuary has well laid out forest roads which cover about 50 kilometres. Apart from the internal forest roads, two highways cut across the Sanctuary. A drive or trek on these forest roads also opens up places of magnificent beauty and gives one a glimpse of excellent natural and man-made forests. A visitor can see grazing animals in the glade from the observation and watch towers."¹ Besides, there are two Rest Houses within the sanctuary, one at Sukna on the west and the other at Sevok on the east.

MANGPU—A village, in the Kurseong police station, 30 km. (19 miles) from Darjiling town and situated between 3,500 and 4,000 feet, is well known for its cinchona factory, the details of which are given elsewhere in this volume. Besides extensive cinchona plantations which surround the place, ipecac, a medicinal plant, is also being grown here. It has a Higher Secondary school, a 16-bed hospital for the plantation workers, a labour welfare centre, a post office, a bazar called Reshep and a dak bungalow and a rest house under the control of the Cinchona Directorate which can be used by visitors on payment and with previous permission. Although the Kanchanjangha range is not visible from here, the place has a quiet charm of its own which attracted even Rabindranath Tagore to come and live here for brief spells on more than one occasion. The house in which he lived now serves as a museum where some of his personal effects are preserved.

MANIBHANJAN—A place, 6,600 feet above sea-level in Sukhiapokhri police station, it is said to have derived its name from the Tibetan word *Mahanay*, which means a cemetery for the dead. It is a small business centre on the Indo-Nepal border, 24 km. (15 miles) from Darjiling town and 6 km. (4 miles) from Sukhiapokhri and is located at the junction of roads leading to Sandakphu, Phalut and Batasia-Palmauja in India and Gokhay (Gorkhe) and Illam (Ilam) in Nepal. Potatoes, cardamom, butter etc. from Nepal are imported while Indian rubber shoes, stationery articles etc. pass through the place to Nepal. A Nepali exchange bank located here exchanges the currencies of the two countries. The place has a branch post office and a charitable hospital set up by the missionaries.

¹ *loc. cit.*

MANSONG—The headquarters of the Mansong cinchona plantation, it is situated at an elevation of about 5,000 feet in Kalimpong police station, with a population of 6,140 in 1961 and 20 km. (13 miles) from Kalimpong by a motorable road. From the grounds of the Jalsa Dak Bungalow maintained here by the Cinchona Directorate, a magnificent view of the entire Kanchanjanga range as also of the Tista meandering for miles between hills may be obtained. On clear nights, the lights of Darjiling town to the south-west and of Gangtok to the north-west are seen from the place. Because of its picturesque setting, it has the potential of developing as a tourist resort. There are two primary schools here besides a hospital run by the Cinchona Directorate.

MATIGARA HAT—Situated on the east bank of the Balasan river, 6 km. (4 miles) north-west of Siliguri along National Highway No. 31, the place is noted for its bi-weekly *hat* sitting on Tuesdays and Saturdays and managed by the Darjiling Improvement Fund, which forms one of the most important trading centres of the Terai frequented by people of both the plains and hill areas of the district. It is within the Siliguri police station and has a population of 881 according to the 1961 census. The railway station Matigara lies on the metre gauge of the North-East Frontier Railway running between Katihar and Siliguri. The State Industries Department has set up a Sericulture Nursery here and it has a primary school, a post office and a rural health centre.

MIRIK—The headquarters of the police station and of the Community Development Block of the same name, Mirik is situated at an elevation of 5,000 feet from sea-level and has a population of 3,531 according to the 1961 census. It is somewhat difficult of access being 50 km. (31 miles) away *via* Dudhijhora and 77 km. (48 miles) *via* Ghum and Sukhiapokhri from the subdivisional headquarters, Kurseong. It is also approachable along motorable roads from Darjiling town and Siliguri which are 45 km. (22 miles) and 51 km. (32 miles) long respectively. Situated on a ridge, the place overlooks precipitous drop on either side, to the Balasan river on the east and the Mechi on the west. There is a large depression here, called the *Samedhu-dhap* in Nepali, which turns into a natural lake during the rains and a swamp in the dry season. This picturesque pool set amidst charming forests of Japanese cedar (*cryptomeria Japonica*) has the potential of developing into an attractive tourist resort. There are two primary schools, a high school, a post office, a rural health centre, a cinema house and a dak bungalow here. Mirik bazar, on the northern edge of the lake, is one of the biggest orange marts of the district.

NAKSALBARI—Headquarters of the police station of the same name on the Nepal border and 24 km. (15 miles) from Siliguri with which it is connected by a metalled road, Naksalbari has also a railway station of the same name on the Katihar-Siliguri section of the North-East Frontier Railway. With a population of 1,037

in 1961, it has a large *hat*, sitting on Tuesdays and Saturdays, managed by the Darjiling Improvement Fund. The east-west highway, now under construction in Nepal, is proposed to be linked with the Indian road system at this point. There are a number of rice-mills and saw-mills here besides two primary schools, two libraries, a post and telegraph office, a higher secondary school and a rural health centre. The place recently leapt into prominence on account of the agrarian unrest there.

PEDONG—A village in the extreme north-eastern part of the Kalimpong police station, situated 4,760 feet above sea-level and having a population of 549 in 1961, Pedong is connected with Kalimpong, 21 km. (13 miles) away, by a motorable road passing through Algara. According to O'Malley, "the name Pedong means 'the incense-tree clearing' and is derived from the *sal* (*Shorea robusta*) trees which once grew here, the resin of which is used as incense in Buddhist temples." As an important centre of trade with Sikkim, the State Government holds here an annual industrial-cum-agricultural fair in which participants from neighbouring areas and Sikkim display their livestock, poultry and agricultural produce. The place has a Buddhist monastery, a high school run by Missionaries, two primary schools and a church of the Roman Catholic Mission which was founded by Father Desgodins in 1882 to which an orphanage was attached in 1883.

PHALUT—Situated at the extreme north-west corner of the district near the tri-junction of India, Sikkim and Nepal, Phalut lies on one of the loftiest eminences of the Singalila range at an elevation of 11,799 feet above sea-level and is 80 km. (50 miles) from Darjiling and 22 km. (14 miles) from Sandakphu along a difficult jeepable road. With the Kanchanjanga massif only 48 km. (30 miles) away, it offers the nearest view of the snowy ranges obtainable in the district. Nestling amidst charming mountain scenery with magnificent views of snowy peaks and glaciers, the place is very attractive to tourists who may find accommodation at the Inspection Bungalow under the Darjiling Improvement Fund managed by the Deputy Commissioner of Darjiling and a Youth Hostel controlled by the Divisional Forest Officer, Darjiling. Mount Everest is visible from here although slightly hidden by Peak No. XIII which has the shape of an enormous arm-chair. Although lacking in wealth of vegetation, rhododendrons are plentiful and the place consists of grassy undulations studded with masses of gneissic rocks.

PULBAZAR—Headquarters of the police station of the same name, the village of Pulbazar is situated at an altitude of about 2,500 feet on the western bank of the Little Rangit river. It derives its name from several bridges (*pul*) across the Little Rangit and smaller streams near the bazar. A motorable road connects it with Darjiling, 35 km. (22 miles) away. The local *hat*, held on Fridays, is one of the oldest and most important in the district where

persons from eastern Nepal, western Sikkim and neighbouring areas within the district gather to sell their agricultural produce and other merchandise. Adjacent to Pulbazar is Bijanbari, the headquarters of the Pulbazar-Bijanbari N.E.S. Block which is 36 km. (23 miles) from Darjiling and 1.6 km. (1 mile) from Pulbazar on a motorable road. It is an important mart where large quantities of green vegetables, potatoes, cardamom, ghee, *chireta* etc. are brought for sale. The ropeway which connects the place with Darjiling town has obviously helped its growth. The West Bengal State Electricity Board has started a hydel project here named the Little Rangit Hydel Project which supplies power to Darjiling town and adjoining areas. A fine view of the outer Himalayas can be obtained from here.

RAMBI—An important orange mart in the Kalimpong police station, it lies at a distance of 28 km. (17 miles) from Kalimpong on the Kalimpong-Siliguri Road. It had a population of 183 in 1961. A weekly *hat*, managed by the Darjiling Improvement Fund, is held here on Sundays where the orange growers of neighbouring areas sell their produce to wholesalers. It has a police outpost and a branch post office.

RANGU(RONGO)—Headquarters of the cinchona plantation of the same name, Rongo is situated in Gorubathan police station at an elevation of about 4,500 feet near the Bhutan border and is approachable from Kalimpong by a motorable road, 135 km. (85 miles) long, which passes through Gairibas, 7 km. (4 miles) away, up to which point North Bengal State Transport buses ply. It can also be reached along National Highways Nos. 31 and 31A up to Batabari Tea Estate from where a side-road branches off and proceeds to Gairibas via the Jaldhaka Project Road. Medicinal plants are also being grown here under the supervision of the State Medicinal Plants Directorate, details of which have been given elsewhere in this volume. It has a dak bungalow under the control of the said Directorate.

A part of the Rongo medicinal plantation, Gairibas, 7 km. (3 miles) from Rongo, grows ipecac and other medicinal plants on a fairly extensive scale. Fine views of the hills, forests and the Jaldhaka river are obtained from here. The place is served by a branch post office and has a dak bungalow maintained by the Medicinal Plants Directorate.

SANDAKPHU—Situated at an elevation of 11,911 feet above sea-level, Sandakphu is the highest eminence of the Singalila range within the district. It can be reached from Darjiling by a jeepable road, 57 km. (36 miles) long, passing through Tanglu. According to O'Malley : "The name Sandakphu means the hills of the poison plant, and has been given to this peak, because the deadly aconite plant grows thickly along the slopes for about 2,000 feet below

he summit. ...Sandakphu commands the finest view of the Himalayas to be obtained in the district. In the foreground is a great basin set in the midst of the hills, the slopes of which are covered by masses of rhododendrons and fragrant pine forest. In the background is a continuous barrier of snowy mountains the most prominent of which is Kinchinjunga towering up in gigantic height and breadth, with its attendant peaks, Kabru, Jano and Pandim, clustering closely round it. Mound Kabru is here foreshortened and does not present the same graceful outline as when seen from Darjeeling, but Jano rises far higher above the spectator with its lofty peak standing up like a great icy horn. Far off to the west, at a distance of 100 miles from the observer, the graceful peak of Everest is seen among a group of other snowy mountains, rising from behind the crest of Peak No. XIII, which in shape curiously resembles a great arm-chair of snow; and further to the west, towards Nepal, there is a wonderful square mass of mountains looking like a wall of snow. The contrast between Everest and Kinchinjunga is very marked. The latter is remarkable for its imposing bulk and massive proportions, while Everest, soaring above a series of valleys and ridges, is more graceful and majestic. The space between the two is occupied by snowy ranges of smaller proportions; and eastward, beyond Kinchinjunga, are visible, first the Narsingh group, and then the Dongkya and Chola ranges on the Tibet frontier with (Chomo Lahri) Chumallhari lifting up its head in the rear. The whole snowy range of Bhutan, Sikkim and Nepal, about 200 miles in length, is visible, but the panorama is completely dominated by the Kinchinjunga and Everest groups¹. Sandakphu is thus an important tourist resort where visitors may find accommodation at the Inspection Bungalow maintained by the Darjiling Improvement Fund under the supervision of the Deputy Commissioner and the Youth Hostel controlled by the Divisional Forest Officer, Darjiling.

SHIGURI—Headquarters—of the plains subdivision of the same name, situated at 26° 43' North latitude and 88° 26' East longitude and 392 feet above sea-level, Siliguri is 80 km. (50 miles) from Darjiling by road and 82 km. (51 miles) by rail. From a small village with a population of only 784 in 1901, it has grown into a big city with a population of 97,462 according to the 1971 census.

It is a municipal town having 8 wards and spread over an area of 15.54 sq. km. (6.00 sq. miles). As a subdivisional headquarters, it has the usual complement of Government offices besides other establishments connected with a developing town. Served by three railway stations, namely, Siliguri Junction, Siliguri Town and New Jalpaiguri Junction as well as by the North Bengal State Transport Corporation and other privately-owned road transport organisations, Siliguri can be reached from Calcutta, 584 km

¹L.S.O'Malley—*op. cit.*, pp. 206-07. 1..

(365 miles) away, by the Eastern and the North-East Frontier Railways as also by National Highway No. 31 which passes through Siliguri to Assam, or by air, the airport being located at Baghdogra, 14 km. (9 miles) away. It is also touched by the metre-gauge section of the North-East Frontier Railway between Katihar and Gauhati. The narrow-gauge railway from New Jalpaiguri to Darjiling passes through the place.

There are 7 Higher Secondary Schools for boys and 4 for girls in the town, besides a Degree college sponsored by Government. The North Bengal University at Raja Rammohanpur is about 5 km. (3 miles) west of Siliguri, and is connected with it by a metalled road.

To correct the haphazard growth of the town and the evils of unplanned urbanization, the Siliguri Planning Organization was set up in 1964. It is engaged in making plans on a 20-year basis for the organized development of the town and for providing basic civic services and amenities to the inhabitants.

The town has 2 cinema houses and 2 parks, namely, Bagha Jatin Park on 1.1 acre and Tilak Maidan on 3.4 acres of land, the latter belonging to the Government of India.

With the construction of godowns and other commercial establishments by wholesale traders, the town started growing from the early nucleus called Khalpara and Nayabazar near the railway station. Industrial and commercial activities have also increased along Hill Cart Road, Sevok Road and Burdwan Road. In 1961, 4,814 workers were employed in 464 factories and other establishments in the town which included rice and flour mills, bakeries, fruit preservation and canning industries, umbrella assembling units, saw mills, plywood factories, furniture making establishments, automobile servicing stations, soap and sodium silicate manufacturing units, aluminium utensil factories and tea industries.

With the Balasan and the Mahananda flowing through it, the town is not devoid of natural beauty. The distant view of the snowy Kanchanjangha on clear days is very attractive. The forest-covered foothills also present a panoramic sight. The myriad flora in the Terai to the north and the agricultural flats to the south combine to form beautiful vistas uncommon around most other towns of West Bengal.

Situated 14 km. (9 miles) west of Siliguri and connected with it by a metalled road, Baghdogra, in Siliguri police station, is the most important airport in North Bengal. The Indian Airlines Corporation operates a daily service between Calcutta and Baghdogra which serves travellers to and from Darjiling, Sikkim and Bhutan. It has a rural health centre and a railway station on the metre-gauge section between Katihar and New Mal Junction of the North-East Frontier Railway.

Situated 11 km. (7 miles) west of Siliguri on National Highway No. 31 is the campus of North Bengal University, the details of which have been given in the chapter on Education and Culture.

SINGLA BAZAR—Picturesquely situated in Pulbazar P.S. on the right bank of the Great Rangit river at an elevation of about 1,000 feet, it is a small village where a weekly *hat* is held on Sundays. The agricultural produce of the neighbourhood as also of western Sikkim is mainly marketed here, the place being also noted for its bracing climate and the scenic beauty of the Great Rangit river which is a favourite resort of anglers. A 16-kilometre (10 miles) long cutcha road, passing through Takvar Tea Estate and having very stiff gradients at places, links it with Darjiling. The recently opened passenger-cum-goods cable ropeway, 8 km. (5 miles) long, which was damaged in the landslides of October 1968 has been commissioned in April 1969 and connects the place with the district headquarters. A survey for extending the ropeway to Nayabazar in Sikkim has since been completed.

SONADA—Situated 6,552 feet above sea-level in Jore Bungalow police station and having a railway station on the New Jalpaiguri-Darjiling section of the North-East Frontier Railway and a population of 2,180 in 1961, Sonada is 14 km. (9 miles) from Darjiling along the Hill Cart Road. It is said that its name originated from the Lepcha words *sona* (bear) and *dah* (abode). O'Malley observed : "The name Sonada, which means the 'bear's den', is suggestive of the number of wild animals which used to haunt the surrounding forest. It was also formerly known as Pacheem and was a regular halting place for travellers proceeding by road to Darjiling. ...A spur about a mile to the west is known as Hope Town, where it was once hoped that a European settlement would spring up. The ground was cleared in 1856, and laid out in building sites, the idea being that a small colony of European pensioners and farmers would be established there; and it was proposed to erect a church, a school-house, a dispensary and a bazar. A church was indeed erected, but the place failed to attract settlers, and much of the land was bought up by planters." Being situated on gentle slopes, the place is suited for residential purposes. There is a Degree college, 4 primary schools, a post office, a rural health centre here. The local market is the shopping centre of the neighbouring tea-garden labourers. Some Sherpa families and Tibetan refugees have been settled here; the latter have built a monastery and set up a farming co-operative society on five acres of land, where they grow vegetables, produce cheese and butter, rear poultry and pigs to meet the needs of Darjiling town. Tibetan women and elderly people engage themselves in wool carding, weaving, knitting and making *pompa* (Tibetan shoes) and *pangda* (multicoloured Tibetan aprons).

SORENG—Situated at an elevation of about 3,000 feet in Rangli Rangliot police station, Soreng is 40 km. (25 miles) from Darjiling and 11 km. (7 miles) from Takdah. A cutcha road from here, motorable only in the dry season, leads to Tista bazar. It lies in the heart of an orange-growing area and is an attractive place for hikers. It has a subsidiary health centre, two primary schools and a post office at Takling, a neighbouring village.

SUKHIAPOKHRI—Situated 7,252 feet above sea-level in the police station of the same name and 17 km. (11 miles) to the south-west of Darjiling on the road leading from Ghum to Phalut, Sukhiapokhri is the headquarters of a N.E.S. Block and a big centre of trade between Nepal and India. It had a population of 1,984 in 1961. In the weekly market sitting here on Fridays, large quantities of potatoes produced in Nepal and manufactured goods produced in India are bought and sold. It has 4 primary schools, a high school, a post office and a rural health centre. Regular vehicular services connect the place with Darjiling and Ghum. About a mile away is the Jorpokhri dak bungalow, set amidst a picturesque forest 7,400 feet above sea-level, which is maintained by the Darjiling Improvement Fund.

TINDHARIA—Situated 2,822 feet above sea-level in Kurseong police station and having a population of 5,441 in 1961, it is 50 km. (31 miles) from Darjiling and 20 km. (13 miles) from Siliguri. It has a railway station on the New Jalpaiguri-Darjiling section of the North-East Frontier Railway, a railway workshop, a railway hospital and a club. Commanding a fine view of the lower foothills and the plains, it is the place where Rabindranath Tagore stayed for some time and composed, among others, the well-known poem on *Paglajhora* (mad torrent), which runs down the hill nearby. It has four primary schools and a post office.

TISTA BAZAR—Situated 710 feet above sea-level in Kalimpong police station, Tista Bazar is 16 km. (10 miles) from Kalimpong and 35 km. (22 miles) from Darjiling along the Pashok Road. With a population of 1,722 in 1961, it stands at the junction of several important thoroughfares, namely, the Tista Valley Road leading to the plains, the Kalimpong Road and Gangtok Road leading to Kalimpong and Sikkim and the Pashok Road proceeding to Ghum and Darjiling. The village is picturesquely situated on the west bank of the Tista which is spanned here by a light suspension bridge, 300 feet long. Some 5 km. (3 miles) to the north a spot is of great natural beauty where the clear waters of the Great Rangit join the turbid current of the Tista. An annual fair is held near the confluence on the *Makar-Samkranti* day around the middle of January. There is a weekly *hat* sitting on Sundays, a primary school, a post office, a library and a dispensary here.

TANGLU—Situated 10,074 feet above sea-level in Sukhiapokhri police station and 37 km. (23 miles) from Darjiling and 11 km. (7 miles) from Manibhanjan, Tanglu lies on an eminence of the Singalila range and is the first halting place on way to Sandakphu and Phalut after which the road ascends steeply to Manibhanjan. Commonly known as Tumling among the local people, it has a dak bungalow of the Darjiling Improvement Fund on the summit close to the frontier between India and Nepal commanding "a fine view", as stated by O'Malley, "of the Nepalese valleys and of the plains of North Bengal, with the snow-fed Tista on the east, the Kosi on the west and a number of smaller rivers between them." There is also a Youth Hostel here maintained by the State Tourist Department.

TAKDAH—Situated in Rangli-Rangliot police station at an elevation of about 5,400 feet, Takdah is 26 km. (16 miles) from Darjiling on a metalled road on which regular vehicular services are available. It is the headquarters of the Rangli-Rangliot N.E.S. Block and had a population of 1,688 in 1961. There used to be a 300-acre cantonment here, established in 1910, for stationing Gorkha troops, who, being permanently transferred elsewhere during the First World War, the cantonment was abolished in 1926 and the buildings sold to others for residential purposes. Apart from the *Debisthan*, a religious centre attracting pilgrims from far and near, it has a primary health centre, a telephone exchange, a post and telegraph office and a dak bungalow of the State Forest Department.





सत्यमेव जयते

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सत्यमेव जयते

INDEX

A

Abhedananda, Swami, 540
 'Aboriginals' see Scheduled Tribes
 Adhikari, 272, 598
 Administration, 93, 95, 362-70, 394-96;
 Agricultural, 370-71; Block, 370; of criminal
 justice, 364; excise, 419-20; Medical, 560-61;
 Police, 364, 414-19
 Adult education (literacy) centres, 523, 524-25
 Aerodrome see Airport
 Agricultural Cooperative Credit Societies,
 271
 Agricultural diseases and pests, 182
 Agricultural indebtedness, 269
 Agricultural implements, 178
 Agricultural labourers, 343, 348-50, 405
 Agricultural loans, 184
 Agricultural marketing, 371
 Agricultural methods, 174-75
 Agricultural commodities/produce, 165-66,
 275, 276-78, 282, 617
 Agriculture, 1, 100-01, 167; State assistance
 to, 184
 Agriculture Department
 Agrarian disturbances, 403-04, 613
 Airlines, 325
 Airport, 325, 599, 616
 Akhil Bharatiya Nepali Pariganit Jati Sangha,
 583
 Akshaya Kumar Maitreya Museum, 534
 Alagar/Algarah, 185, 188, 282, 531, 532, 598
 All India Arya Samaj, Darjiling, 537, 583-84
 All India Nepali Scheduled Castes Association
 see Akhil Bharatiya Nepali Pariganit
 Jati Sangha
 All India Radio stations, 287, 335, 608
 All India Women's Conference (Darjiling
 Branch), 538, 583
 Aloobari, 452, 602; introduction of Tea
 plantation at, 99
 Aman, 165, 177
 Anchal Panchayat see Panchayat
 Anchalik Parishad, 366, 449, 457-58, 459,
 469-70
 Anglo-Hindi School see Zilla School, Darjiling
 Anglo-Indian Schools see Schools, European
 Animal husbandry, 185
 Animal sacrifices, 598
 Animals, Wild, 68-72
 Animism/Animists, 122, 124-25, 472
 Anjuman-e-Islamia, Darjiling, 538, 583
 Area (of the District), 3
 Aromatic plants, 242
 Artificial insemination Centre at Siliguri, 188
 Arya Samiti, 584
 Asian Highways, 309

Asiatic Society of Bengal, 601
 Associations, literary and cultural, 537-41
 Auditorium, 540, 541
 Aus, 165, 175, 177

B

Backward classes see Scheduled Castes and
 Scheduled Tribes
 Badamtam, 92, 598
 Bagdogra, 83, 325, 599, 616
 Balasan, the 13-4, 18, 259, 449, 608; tributaries
 of the, 14-5
 Bamboo products, 222
 Bandel Church (Hugli), 515
 Banga Bhasha Prachar Samiti (Darjiling
 Branch), 538
 Bangiya Mahila Samiti, 584
 Bangiya Sahitya Parishad (Siliguri Branch),
 538
 Banks, cooperative, 268, 270; indigenous,
 268; Joint stock, 269, 385, 606; Post Office
 Savings, 270
 Basti, 115-16, 450
 Bee-keeping, 257
 Beetles, 82
 Bengal Natural History Society, 533; Journal
 of the, 582
 Bengal Village Self-Government Act of 1919,
 the, 448
 Bengali Association of Kurseong, 538-39,
 584
 Beni, 598
 Bentinck, William, 388
 Bhadoi see Aus
 Bhanjang, 136, 184
 Bhodan movement, 405
 Bhore Committee, 556
 Bhutan, King of, 601; trade relations with,
 271, 274
 Bhutanese fort, 599
 Bhutia/Bhotia Basti, 391, 392, 452, 473,
 600, 602
 Bhutias/ Bhotias, 117, 123, 133, 472, 480,
 481, 485, 486, 490, 491, 539; traditional
 dress of, 153
 Bidhan Market, 111, 278
 Bijanbari, 187, 256, 257, 277, 282, 529;
 Hydro-generating centre at, 223
 Bilinguals, 121-22, 485
 Birch Hill (see also Jawahar Parvat), 536, 600
 Birds, 72-6
 Births, 546, 547, 563; Registration of, 551
 Blind school at Kalimpong, 587
 Board of Secondary Education, West Bengal,
 479, 481, 486, 505-06
 Board of Revenue, West Bengal, 462
 Bon (priest), 544

Bonthings see animists

Bose, Acharya Jagadish Chandra, 600
 Bose, Netaji Subhash Chandra, 608
 Botanical Garden, Royal, 235
 Botanical Laboratory, Mayapuri, 600
 Botanical Museum, 533, 535
 Brahmos, 602
 Brahmō Samaj, Darjiling, 483, 585
 Breeds, measures to improve quality of, 185-86
 Brick-making centre, 257
 Bridges, 289, 293, 294, 321-24, 448; suspension, 598
Bu-can (Tibetan scripts), 472
 Buddhism, Mahayani, 473, 474
 Buddhist Gods, 123, 124
 Buddhist monasteries, 124, 292, 602
 Buddhist monastic school, 522
 Buddhist shrines see Buddhist monasteries
 Buddhists, 122, 124
 Bungalows, dak and inspection, 328, 397, 604, 612, 613, 614, 618, 619
 Burning ghats, 451
 Butterflies, 81-2

C

Calcutta Girls' School (now defunct), 481-82
 Cambridge School Certificate examination, 477, 478, 479, 500, 502
 Campbell, Dr. Arthur D. Superintendent of Darjiling, 93, 99; became Deputy Commissioner, 94
 Cane and Bamboo Training Centre, 257
Cane bridge, 294
 Cantonments, 282, 292, 312, 463, 464, 465, 497, 551
 Cantonment Boards, 463-66
 Cantonment schools, 497
 Cardamom, 173, 175, 240, 242, 272, 273, 275, 277, 604, 611
 Carmichael, Lord, 533
 Cattle, 185, 186, 271, 272; loans for purchasing, 184
 Cattle Development Scheme, Hill, 186
 Cemetery, 601
 Central Excise, 382
 Central Lace School see Kalimpong Industrial School for Girls
 Central Public Works Department, 298
 Central Relief Committee, 111
 Central Road Fund, 301
 Cereals, 155
 Charcoal, 226, 227
 Charteris Hospital, 545, 562, 586, 606
 Chel, the, 18
 Chief Medical Officer, 560, 561, 563, 565
 Chowrasta see the Mall
 Christian Mission/Missionaries on education, 474, 475, 476, 477, 478, 480, 481, 482, 483, 505, 517, 519, 520, 523, 527, 541, 606, 608, 613; on charitable work, 545, 555, 562, 611

Christianity, first introduced into the district, 125
 Christians (see also Europeans), 122, 124, 125, 491
 Church of Scotland Mission, real beginner of missionary enterprise in the district, 125, 482, 518, 520
 Church of Scotland Mission Girls' School, 482, 518
 Churches, 602, 607, 613, 617
 Cinchona, 172, 203, 279, 353; cultivation of 236-38; introduced in Bengal, 235-36; isolation of quinine from, 238-39; Origin of the name of, 235; products, 240-41
 Cinchona plantation industry, 235-41, Cinchona plantations, 239-40, 399; area of, 240; crops cultivated in, 240; first in Darjiling, 236; management of, 371; (at) Mangpu, 399
 Civil courts, 423, 424, 425, 434-35, 436, 437-38
 Civil justice, 409, 423-25
 Civil suits, 423, 425
 Cloudiness, 84-5
 Clubs, 584, 586, 590, 608
 Coal, 36, 225-26
 Coffee, 240, 242
 College/Colleges, Basic Training, 606; Co-educational, 514; Girls' 511; Government, 516, 517, 519; Government aided, 519; Government sponsored 515; offering Nepali and Tibetan language as vernacular subjects, 517; residential, 515; Teachers' Training, 477, 518-19
 Colliery/Collieries, 36, 225-26
 Commercial Taxes, 371-72
 Community Centres, 524, 526
 Compensation, 400
 Configuration, 4
 Conveyances, 295-96, 313-14
 Convicts, 426, 428, 443, 444, 445
 Cooperative Societies, 185-86, 252, 253, 256, 261, 269, 585, 607, 617; Deputy Registrar of, 372
 Cooperative Agricultural Marketing Societies, 280-81
 Cooperative Bank, Central, 185
 Copper, 36-7, 225
 Coronation Bridge, 599
 Cost of living, 353
 Councils, traditionals, 156
 Crop, High-yielding programme of, 181-82
 Cropped area, 172-74
 Crops, 172-74, 175-76, 176-77, 177-78
 Crimes, 408-12, 425
 Criminal cases, 421, 422, 445
 Criminal justice, 409, 421-22
 Cryptomeria, 197, 201
 Cutlery servicing station, 253, 260

D

Dairy project, 186
 Dak bungalows see Bungalows, dak and inspection
 Dalai Lama, 589, 607
 Daling, 36, 37, 599
 Damais, 129
 Damsong, 599
Dandi, a mode of old time conveyance, 295
 Darjiling, area of, 3, 4, 399; creation of, 92; included in the Rajshahi subdivision, 95; origin of the name of, 1-2; police stations of, 97; population of, 3, 96, 113, 114; rainfall of, 87; subdivisions of, 94, 96-7; transferred into the Bhagalpur Division, 95, 424; Subdivision, 186, 197, 313, 349, 368, 488, 523, 527, 528, 529, 530, 532; area of, 96, 98; became a, 94; population of, 96-7, 98, 106, 197; Town, 283, 286, 487, 498, 524, 525, 536, 552, 561;—account of, 599-603
 Darjiling District Referees' Association, 585
 Darjiling Enquiry Committee on education, 484-85, 496; on Nepali Language, 486
 Darjiling Girls' School see St. Michael's School
 Darjiling Government College, 516, 517, 523
 Darjiling Government High School see Zilla School, Darjiling
 Darjiling-Himalayan Railway, 258, 289
 Darjiling Improvement Fund, 280, 312, 397-98, 448, 460-63, 533, 551, 598, 604, 612, 613, 614, 615, 619
 Darjiling Jail see District Jail
 Darjiling Local Board, 511
 Darjiling Municipality, 390, 391, 392, 448, 449, 450, 451, 452, 453, 454, 456, 467, 468, 499, 533, 536, 538, 551, 565, 583, 587, 588; pioneer in supplying electricity in West Bengal, 222
Darjiling News, the, 582
 Darjiling Polytechnic, 260
 Darjiling Training School, 518
 Darjiling Town Improvement Committee, 363
 Darjiling (Town) Khas Mahal, 388, 390-92
 Darjiling Water-Supply Improvement Scheme, 454
 Darjiling Zilla School see Zilla School, Darjiling
 Das, Chittaranjan, 603
Dashera, 126, 527
Dawai Pani see Mineral springs
Dayabhaga, system of inheritance, 140
 Deaths (see also mortality), 546, 547, 552-54, 566; from selected causes, 550-51, 568-70; Registration of, 551
Debirthan at Takdah, 619
 Density of Population, 96, 98
 Deokota Sangha, Asrampara, 539, 585
 Deputy Commissioner, 362-68, 398, 416, 419, 421, 425, 448, 461, 462, 533; Additional, 368
 Deputy Magistrate, 368-69

Deshbandhu District Library see District Library
 Deshbandhu Memorial Society, 563, 585
 Deshbandhu Sporting Union, 585
 Deshbandhu Trained Dai Institution, 563, 585
Dharmasala, 330
 Dilpa khola, the, 9
 Diocese of Darjiling, the, 585
 Diocesan School see St. Michael's School
 Diseases, 548, 551; common to the district, 545; enteric group of, 553-54, 568, 569; fever, 544, 568; *Kala-azar*, 544, 560, 569; malaria, 552-53, 569; Tuberculosis, 554-55, 570
 Dispensary/Dispensaries, 264, 397, 452, 545, 555, 556, 558, 585, 590, 618; charitable, 555, 556, 558, 590, 618; travelling, 555
 District Board (see also Zilla Parishad), 298, 299, 305, 396, 448, 461, 524, 558, 560, 565; establishment of, 448
 District Employment Exchange, 355
 District Jail, 426-27, 428, 439, 441
 District Library, 578, 588
 District Officer, 363, 366-67
 District Road Cess Committee, 448
 District School Board, 497-98
 District Seed Farm, Kalimpong, 183
 District and Session Judge, 422, 424, 425, 426
 Divisional Forest Officer, 375, 376
 Divorces, 141, 145, 146-47
Diwali, 126
 Doctors see Physicians
 Dow-Hill, 207, 476
 Dow-Hill Girls' School, 476, 477, 500, 518
 Dow-Hill Training College for Women (defunct), 518
 Drains, 451-52
 Dukha Nivarak Sammelan, Kalimpong, 586
 Durbindara, 605, 606
 Dussera see Dashera

E

Earthquakes, 38-40, 514
 East India Company, 227, 386, 474
 Eastern Himalayan Church Council at Lochnagar, 586
 Eden, Sir Ashley, 534
 Education, adult, 264, 523, 556; Darjiling Enquiry Committee on, 484-85; (on) forestry, 207-08; Higher Secondary, 502-11; in medieval times, 472-74; introduction of modern, 474-79; parochial, 472, 523; primary, 485, 495-99; progress of, 491-92; role of municipalities in, 454-55; Secondary, 500-02; Social, 380-81, 523-32; technical, 485, 519-22, 540; (through) vernacular media, 479-83
 Educational attainments, 492-94
 Education Commission, 1964-66, Indian, 505
 Election constituencies, 571-72

Elections, General, 571, 573-77, 580-81; mid-term, 578-79; municipal, 449; Panchayat, 466

Electricity see power

Emigration, 108, 109

Employees' organisations, 263

Employment, 309f, 356; exchanges, 355-57, 372; opportunities for Tibetan refugees, 111-12

Employment Officer, 372

Enforcement crimes, 410-11

Erosion see landslides and Soil, erosion of

Estates Acquisition Act, 387, 398, 399, 400, 403, 404

Europeans (see also Christians), 99, 104

Everest, 605, 615

Excise (Central), 382

Excise administration, 419; articles, 420; crimes, 411-12; licences, 420

Exogamy, 146

Exotic plants, 201

F

Factories, number of registered, 243

Fair price shops, 281

Fairs, 280, 286-87, 598, 618; Industrial-cum-agricultural, 613; Trade, 606-07

Family budgets, 354

Family, composition of, 136-38

Family planning organizations/Units, 561, 563-64

F.A.O., 205

Farakka Barrage, 258, 261

Fauna, 563, 610-11

Fazi, Kurseong hydel power station at, 609

Ferries, 220, 397

Ferry boat, used by Hooker, 294

Fertilizers (see also manure), 181, 231; loan for purchasing, 184

Festivals, 126-28, 234, 539, 540, 598

Fine arts, institutes for, 537

Fire, damages caused by, 205

Fire Protection Rules, 205

Fire stations, 373

Fishes, 79-80, 373

Fisheries, development of, 188

Floods, 19, 292, 293, 324-25

Flora, 533, 610-11, 618

Fodder, 185

Folk entertainment Units, 524, 526

Folk songs and dances, 127

Food Corporation of India, Manager of, 384

Food Processing Centre, 257

Food and Supplies, District Controller of, 374

Foot wear centre, 257

Forest products, 190, 194, 203, 279; revenue and expenditure, 192; roads, 205; School see West Bengal Forest School, Dow Hill; soils, 167-68, 171; Forest policy, role of, 190-92; Forestry education, 207-08

Forests, 54-68, 161, 194, 374-75; area under, 189; classification of, 193-94; Conservator of, 374; Government Policy on, 62-6; Reserved, 54, 105, 162, 172, 399

Frogs, 78-9

Fruits, 52, 174, 177, 183, 271, 272, 273, 274, 278; introduction of European, 93

Furniture, 151

G

Game birds, 75-6

Game laws, 66-7

Game Sanctuary, the Senchal, 67

Gandhi Smarak Nidhi at Suktarh, 586

Ganesh, animal sacrifices to the god, 123

Garments, 152-53

Gavabari, 291

Gayaganga Catholic Church, Naksalbari, 539, 586-87

Geethals Memorial Orphanage & School, 477-78, 504, 510, 521, 608

Geological antiquity, 22-4

Geological formations (of the district), 24-35

Geological investigations, 21-2

General Industrial School, 520

Ghum, 187, 277, 291, 292; account of, 603-05

Girls' Boarding School see Nepali Girls' High School

Gokh, 605

Gold dust, imported from Tibet, 275

Gompas, 473

Gorkha Dukh Nivarak Sammelan, 539, 587

Gorkha Ex-servicemen's Association, Darjiling, 587

Gorkhas (see also Nepalese), 473, 600; suitable for military careers, 105

Gorkha War, 491

Gornbathan, 97, 98, 107, 179, 180, 187, 188, 283, 411, 412, 498, 524, 525, 526, 528, 530

Government College, 485

Government High English School see Zilla School, Darjiling

Government House, 603

Government of India Act, 1935, 95

Graham, Mrs. Catherine/Katherine, 245, 482, 519, 520, 607

Graham, Rev. J.A., 477, 606, 607

Graham's Homes, Kalimpong, 477, 519, 606

Gram Panchayat see Panchayats

Grand Hotel (Calcutta), passenger automobile services introduced by, 296

Graphite, 37

Ground water, 21

Gurdum Khola, the, 9

Guru Rimpochhe, 474, 589

H

Handicrafts, 250-51, 261

Hats see Markets

Health Centres, 551, 556-57, 559, 561, 598, 608, 613, 617, 618, 619

Health Officer, District, 561
Herbs (see also Medicinal plants), 543, 544
Highways (see also Roads), 258, 301, 303, 304, 305, 309-10, 311, 314
Hiking (see also Trekking), 336-37
Himachal Hindi Bhawan, Darjiling, 538
Himalayan Cultural Assembly, Darjiling, 539
Himalayan Mountaineering Institute, 536-37, 601
Himalayan Mountaineering Institute Museum, 533-34; Journal of the, 582
Hindi, 116, 121, 424, 486
Hindu gods, 122-23, 602
Hindus, number of, 122
Hindu temples, 602, 607
Holi, 126-27
Home guards, 418-19
'Honeymoon House', 336f
Hospitals, 477, 539, 545, 555, 556, 557, 558, 561-63, 586, 587, 590, 611, 612; District Hospital (Victoria Hospital), 557, 603; Infectious Diseases, 452; patients at, 559, 568-70; Railway, 555, 562; Veterinary, 187-88, 606
Hostels (see also Youth Hostels), 476, 477, 513, 514, 515, 516, 517, 522, 523, 536, 540
Hotels, 327, 329-30, 338-39, 599
Houses, 147-50
Housing schemes, 376
Hudum Deo, 128
Hundis, 268
Hunting, 151
Hydel-power generating stations, 259
Hydel Project started by the West Bengal State Electricity Board, 223, 614

I

Immigration, 108, 109, 110
Income-tax, 383; Agricultural, 371
Indebtedness, agricultural, 269
Indian Airlines Corporation, 325, 616
Indian Red Cross Society (Darjiling Branch), 563, 589, 590
Indo-Tibet Buddhist Cultural Institute, Kalimpong, 539-40
Industrial Co-operatives, 252, 253, 261
Industrial loans, 251-52
Industrial Officer, District, 376
Industrial schools, 245-46, 519, 520
Industrial School & Workshop, 259-60, 377
Industrial training Centre at Tung, 485, 521-22
Industrial training centres, 257
Industrial Training Institute at Tung, 254, 377; at Siliguri, 260, 377
Industries, Cinchona plantation, 235-41; cottage, 222, 245-48, 253; household, 156-60; location of, 244; number of employees in, 243; plans for future development of, 258; Rural Project for, 56-8, 251, 260-61, 376-77;

small scale, 242-51; State aid to, 251-52, 271; tea plantation, 99-100, 227-30; weaving, 222, 246-47, 260
Industries, Directorate of Cottage and Small Scale, 250
Industries, Directorate of, 255
Infectious Diseases Hospitals, 452
Information officer, District, 377
Inoculations, 453, 567
Insects, 80-1
Ipecac, 202-03, 211, 240, 241, 609, 614
Iron ores, 37-8, 225
Irrigation, area under, 164; primitive system of, 163

J

Jail Hospitals, 555, 558
Jails, 426-28; administration of, 427; population of, 426, 427, 439-42
Jalapahar Cantonment, 288, 292, 312, 463, 464, 465, 497, 551
Jaldhaka, the, 8, 17-8, 33
Jaldhaka, account of, 635
Jaldhaka (Hydel) Project, 167, 223, 605
Jalpaiguri Engineering College, 260
Jatiya Yuba Sangha, Siliguri, 587
Jawahar Parvat (see also Birch Hill), 533
Jhepi Jhora, the, 10
Jidrapong, 452
Jore Bungalow, 277, 283, 411, 412, 498, 524, 525, 526, 528
Jores, 396, 402
Journals see periodicals

K

Kali, variant forms of the goddess, 123
Kali Khola, the, 10, 12
Kalimpong, 40, 83, 87, 172, 183, 184, 187, 188, 249, 250, 253, 257, 277, 283, 398, 411, 412, 427, 498, 518, 519, 524, 525, 526, 527, 528, 529, 531, 532; ceded to the British, 94; Neoliths found at, 92
—Subdivision, 38, 181, 183, 186, 313, 359, 368, 393, 401, 488, 523, 530; area of, 97, 98; creation of 95; population of, 97, 98, 101, 106, 107, 113
—Town, 115, 132, 482; account of, 605-07
Kalimpong Arts and Crafts (a cottage, industries unit), 261, 586
Kalimpong Arts and Crafts Industrial Co-operative Society, 246, 257, 607
Kalimpong Club, 584
Kalimpong College, 515
Kalimpong Electric Supply Co., 223
Kalimpong Embroidery School, 520
Kalimpong Girls' High School, 482-83, 503, 508, 586
Kalimpong Government Estate, 392-94, 395

- Kalimpong Industrial School for Boys, 519, 520; for Girls, 245-46, 519, 520, (see also Kalimpong Arts and Crafts Industrial Co-operative Society)
 Kalimpong Local Board, 311, 312
 Kalimpong Mission Industries Association, 520
 Kalimpong Municipality, 449, 450, 452, 453, 454-55, 456, 467, 468, 551, 565
 Kalimpong Sub-Jail, 427, 439, 442
 Kalimpong Technical School, 257
 Kanchenjunga, 20, 599, 604, 607, 612, 615, 616
Kan-juar, 473
 Katapahar cantonment, 292
 Khan and Village Industries Board, 253
 Kharibari, 97, 98, 107, 113, 278, 283, 286, 406, 407, 411, 412, 498, 525, 532; Block Seed Farm at, 179, 180; agrarian disturbance in, 403-04
Khar Kura Nepali, 485, 486
Khas Mahals, 363, 387, 388-97, 400, 403; administration of, 394-96
Khatals, 456
 Khrushchev, N.S., 536, 600
 Koches, 130-31, 140
Kukris, 250, 303, 409, 603
Kumari (Virgin) worship, 123
 Kurseong, 43, 83, 88, 172, 187, 188, 284, 286, 292, 411, 412, 524, 525, 526, 528, 529, 530, 532, 561; Origin of the name of, 608
 —Subdivision, 38, 313, 349, 368, 488, 523, 527; area of, 97, 98; creation of, 94-5; population of, 97, 98, 106, 107, 113, 114, 608; Radio Station at, 335, 608
 —Town, 115, 132, 476, 477, 487, 499, 518; account of, 607-09
 Kurseong College, 517
 Kurseong Municipality, 448, 450, 452, 453, 454, 455, 456, 467, 468, 551, 565
 Kurseong Polytechnic School, 257, 608
 Kurseong Sub-Jail, 426, 427, 440, 442
 Kurseong Water Supply Remodelling Scheme, 454
- L**
- Labha, 609-10
 Labour Commissioner, Assistant, 378,
 Labour Directorate, 263, 264
 Labour Unions, 261-62, 265-67
 Labour Unrest, 262-63
 Labour Welfare, 263-64
 Labourers
 — agricultural, 101, 343, 348-50; industrial, 243, 247, 248, 264; tea garden (plantation), 99-100, 106, 156, 482
 Lahtsum, Chhembo, Lamaist Buddhism introduced by, 472, 474
 Lakes, 20
 Lakshmi Puja, 126
 Lamahatta, 609
 Lamaism (Buddhism), 123, 124, 472
 Lamaish encyclopaedias, 473-74
 Lamas, 124, 273, 274; rebellion of, 93,
 Land, cultivable waste, 162; custom, 383; reclamation, 161, 162, 183; reforms, 401-03, 404; Reforms Committee, 402, 403-04; Utilization, 161, 189
 Land for landless scheme, first introduced, 402;
 Land revenue, administration and history of 387-90; collection of, 401
 Land system, basic features of, 387
 Lands, transfer of, resisted, 400, 401
 Landslides/Landships, 40-8; in 1968, 47-8; researches on, 205-07
 Laring khola, the, 10
 Latpanchor, 202, 203, 239, 240, 241, 609; plantation, 240
 Latrines, 450
 Lebong Cantonment, 312, 463, 464, 465, 497, 551
 Lebong Race Course, 96, 603
 Lebong, tea plantation introduced at, 99
 Leeches, 80
 Legislatures (State and Union) representation in, 573-81
 Lepcha and Bhotia Boarding and Artizan School (later Darjiling Government High School and subsequently Zilla School), 480, 481, 500, 503
 Lepcha cloth, 222, 250
 Lepcha custom of inheritance, 139
 Lepcha script evolution of, 472
 Lepchas, 117, 123, 124, 134, 472, 473, 479, 480, 481, 485, 486, 490, 491, 539; marriage customs of the, 143-46; traditional dress of the, 153
 Leper (Leprosy) Hospital, 562, 586
 Levirate marriage, 144
 Libraries, 208, 455, 473, 523, 524, 528-32, 536, 539, 540, 584, 585, 587, 588, 601, 606, 609, 613, 618; Area, 530; Expenditures on, 532; Feeder, 531-32; Public, 528-30; Rural, 532
 Library Centres, 530
 Life Insurance Corporation of India, 271, 384-85
 Lloyd Botanic Gardens, Darjiling, 534-36, 600
 Lloyd, General, discoverer of Darjiling, 93, 94, 601
 Lloyd, William, donor of the land to Lloyd Botanic Gardens, 534, 600
 Limbus, 472, 485, 490, 491
 Lime, 38
 Lions Club, Darjiling, 587-88
 Liquors, 156
 Literates, 486, 487, 488, 489, 490, 542, 594-95
 Little Ranjit (Hydel) Scheme, 223, 614
 Live stock census, 186
 Live stock diseases, 187, 188
 Local Boards, 448, 560
 Location Fund, 391, 460, 461
 Lockouts and strikes see Labour unrest
 Lodhoma Khola, the, 9
 Lopchu Khola, the, 11

Loreto College at Darjiling, 517
Loreto Convent for Girls, 475, 500, 503, 510
Lytton, Lord, Darjiling visited by, 290

M

Macfarlane, Rev. William, 125, 480, 486, 518, 586, 607
Madrashas, 522, 538, 583
Magical rites for curing diseases, 544
Mahajans see Money-lenders
Mahakal, a manifestation of Siva, 600
Mahanadi, the, 12-13, 19, 259, 292, 452, 608, 616
Mahanadi Wild Life Sanctuary, 67-8, 610-11
Mahananda see Mahanadi, the
Maharani Girls' School, 483, 503, 508
Maize Improvement Scheme, All India Coordinated, 183
Maktabas, 538
Mall, the, 600
Mandal/Mandals, 389, 390, 395, 551
Mandali system, 395-96
Mangpu/Mangpoo, 87, 203, 239, 240, 241, 371, 531, 611; Rabindra Nath Tagore associated with, 611; plantations, 236, 240, 399
Manjitar, ancient relics found in, 598
Mansong, 241, 612; plantation, 240
Manure (see also fertilizer), 178-79
Manuscripts, 534, 603
Marital status, 142-43
Markets/*Hats*, 280, 283-85, 394, 396, 397, 450-51, 609, 612, 614, 618; retail, 280; Sunday, 598; Wholesale, 277-78
Marriage Customs of the Lepchas, 145-46; of the Nepalese, 147; of the Rajbansis, 143-45
Marriages, 140-47; under the special Marriage Act, 1954, 140-41
Matigara *Hat*, 248, 249, 278, 612
Mauzas, total number of, 115
Mecheni Khola, 127-28
Meches, 134
Mechi, the, 15, 19
Medical aid, 264
Medical College, 485, 523
Medical facilities, 543-44, 555
Medical institutions (see also Hospitals and dispensaries), 545, 556
Medical Officer, District, 561
Medicinal plants/plantations, 202-03, 209-21, 279, 378, 399, 614; Directorate of, 202, 241, 242
Meas see Fairs
Merchants Associations, 281
Metric system see Weights and Measures
Milk-supply, 185
Mineral products, 225-26; Springs, 20; Wealth, 36-8
Minimum Wages Act of, 1948, 264, 345, 351
Mirik, 97, 98, 107, 177, 187, 188, 284, 286, 292, 411, 412, 498, 524, 525, 526, 529, 532, 612

Missionary activities (see also Christian Missions), 125
Mitakshara, 140
Mon (priesters)
Monastery/Monasteries, 472, 473, 522, 589, 600, 601, 603, 607
Monastic school, 539
Money-lenders, 268, 269
Mortality, 545-46, 552, 555; infant, 548-49
Mosques, 583, 602, 607
Mount Hermon School, 477, 504, 510 540,
Mulberry cultivation see sericulture
Municipal election, 449
Municipal markets, 450
Mundus, 116, 124
Municipality/Municipalities, 305, 448, 449-57, 467-68, 561, 565; administrative set-up of, 455-56; Famines of, 456-57; (role of) in, 454-55
Munsong, 239, 240, 242
Museums, 533-34, 535, 601
Musk, imported from Tibet, 275
Muslims, 122

N

'Nagree' pass, an old route, 288
Naksalbari, 97, 98, 107, 113, 284, 406, 407, 411, 412, 612-13; agrarian disturbances in, 403-04, 613; area of, 98; population of, 98, 107
National Cadet Corps Training, 527
National Savings, 384
National Volunteer Force, 419
Natural History Museum, Darjiling, 533, 534-35, 601
Nature Education Scheme, 533
Neora Jhora, the, 10
Nepal, 109; trade relations with, 271, 272, 277
Nepalese/Nepali, 101-05, 116, 118, 121, 151, 486, 539; marriage customs of the, 147
Nepali (language), 485, 517, 537; demand as, 486
Nepali Girls' High School, 481, 503, 586
Nepali Isai Sahitya Sangha, Darjiling, 538
Nepali Sahitya Adhyayana Samiti, Kalimpong, 538
Nepali Sahitya Parishad, Darjiling, 537
Nepali Sahitya Sammelan, Darjiling, 537
Newars, 122, 151, 485, 490, 491; traditional dress of the, 152-53
Newspapers, 582
Nilratan Sarkar Medical College, Calcutta, 485
Nivedita, Sister, 540, 588, 601
Non-Workers, 343, 344-46
Norgay, Tenzing, 533, 601
North Bengal State Transport Corporation (Headquarters' at Koch Bihar), 314, 316
North Bengal University, 260, 355, 512, 514, 515, 516, 517, 522-23, 534, 616, 617; jurisdiction of, 522
Nripendra Narayan Hindu Public Hall, Darjiling, 540

Nursing and Midwifery, training in, 562, 606
Nutritional programme, 565

O

Observatories, 83
Observatory Hill, 473, 600
Occupational classification, 344-46
Occupational shifts, 354-55
Oranges, 52, 166, 177, 278, 618; export of, 273, 275, 277; marts, 604, 612, 614; scheme for improvement of, 183
Oraons, 116, 124, 490, 491
Ornaments/Jewellery, 154-55, 533
Orphanage, 540, 586, 588, 608, 613
Orphans, 521, 585
'Our Lady's House' see Salesian College

P

Padmasambhava, Mahaguru see Guru Rim-pochhe
Pagla jhora the, 291-92, 618
Pala khola, the, 16-7
Paliyas, 130, 131, 140
Palkee/Palki, 288, 290
Palmajhu Khola, the, 9
Panchayat Election, 446
Panchayat Officer, District, 366
Panchayat Samitis, 466, 556
Panchayats, Anchal, 367, 449, 458-59, 469-70; Gram, 116, 449, 459-60, 466, 471
Panighata, 277
Paper, hand-made, 250
Paren (Bhutan), 223
Parks, 172, 455, 607
Partham Khola, the, 9
Pashok Khola, the, 12
Pedong, 88, 531, 613; meaning of the word, 613
People's (Janata) Basic Training College, Kalimpong, 519
Periodicals/Magazines, 533, 537, 538, 539, 540, 582, 585, 601
Pests and blights, 232
Phalut, 20, 613
Phansidewa, 257, 284, 286, 406, 407, 411, 412, 448, 524, 525, 528, 530, 532; agrarian disturbance in, 403-04
Physical Culture, 264
Physical education and Youth Welfare, 378, 527
Physicians, 357, 561
Picnic spots see Parks
Pig rearing, 186
Pilot Survey, 551
Pineapple Research Station at Salbani, 183
Pisciculture (see also Fishes), 188
Plantations (see also tea, cinchona, *sal* plantation), 197, 198, 264
Plant Protection measures, 182
Plants (see also Medicinal plants), Aronatic, 242; exotic, 201

Police administration, 414-19
Police-circles, district divided into, 416-17
Police, Rural, 418
Police stations, 97-8, 415-16, 417
Poll-tax, 393
Political parties, 572-73, 576, 577
Polyandry, 145
Polygamy, 143, 145
Population, 3, 96-99, 103-04, 105-07, 127, 132, 393, 394, 548, 549, 606, 608, 609, 612, 613, 614, 615, 618, 619; Density of, 96, 98
Post Offices, 330, 331, 332-33, 340-42; Superintendent of, 384
Potato Experimental Farm, State at Bhanjang 184
Potato Seed Multiplication Farm, State at Rungbull, 176
Potatoes, 272, 276, 604, 611, 618
Potteries, 222
Poultry development work, 186; diseases, 188; population, 187
Power, 222-24; generated and consumed, 224
Prices, 346-48
'Princess of Hill Stations' see Kalimpong
Prison industry, 428
Probation Officer, 425
Professions, learned, 357-58
Project Officer, Rural Industries Project, 376
Public Halls see Auditorium
Public Health Engineering, 328-29
Public Works Department, 296, 298, 299, 301
Pulbazar, 98, 107, 179, 180, 256, 257, 282, 284, 287, 411, 412, 498, 524, 525, 526, 530, 532; account of, 613-14
Pulungdon Basti Mahila Samity, 588
Pusparani Roy Memorial H. E. School, 504

Q

Quinine, 219, 235, 238-39, 240, 279, 371, 552

R

Rahul Sankrityayana, 601
Railway Hospital, 555, 562
Railways, 105, 279, 290-92, 293, 317-20, 549, 603; opening of, 317
Rainfall, 83-4, 87-8, 230
Raja Rammohanpur, 523, 617
Rajbansis, 105, 123, 124, 130, 151, 490; festivals of, 127-28; marriage customs of, 143-45; using herbs to cure ailment, 543-44; traditional dress of, 153-54
Rajshahi Division, Darjiling included in, 95
Ramakrishna Mission, 519
Ramakrishna Mission B. T. College, Shri, 519

Ramakrishna Vedanta Ashrama, Shri, 499, 540, 588, 602
 Rambai, 277, 614
 Ramman, the, 10, 259
 Rangli-Rangliot, 285, 287, 411, 412, 498, 525, 526, 528, 530, 532
 Rangnu (Rongdong) Khola, the, 11
 Rangu (Rongo), 202, 203, 239, 241, 399, 614
 Ranjit, the Chhota, 10
 Ranjit, the Great, 8, 10-1, 598
 Ratho Khola, the, 8
 Rationing Officer, 379
 Rayeng Nala, 12, 19
 Recreation (see also sports), 264
 Refugees, 110-12
 Registration Officer, 379
 Rehabilitation Officer, 379
 Relling, 249, 257
 Relling Government Estate, 387, 388, 390, 394
 Reptiles, 70-8
 Result Demonstration Centre, 183
 Revenues, 386, 393, 394, 396, 401
 Rice, 164, 173 ; as staple food, 155
 Rithu khola, the, 9
 Road, Cess, 296, 461
 Road Development Committee, 301
 Roads (see also Highways), 258, 288, 289, 291, 292, 293, 296-313, 390, 398, 448 ;
 administration of, 296-97 ; Construction and maintenance of, 297-301, 312, 313 ;
 Forest, 312-13 ; length of, 296, 297, 298, 299, 300, 307, 311, 312, 452 ; metalled, 296, 298, 301 ; (under) Plan period, 305-08 ;
 Village, 311-12
 Roads, Jayakar Committee on, 301 ; King Plan on, 301-03 ;
 Nagpur Plan on, 303-04
 Rongo see Rangu
 Ropeways, 204, 325-27, 614, 617
 Routes see roads and highways
 Rural Cooperative Societies (see also Co-operative societies), 269
 Rural electrification, 223-24
 Rural Industries Project, 251, 256-58, 259, 260-61, 376-77

S

'Sabbook Golah', ancient route, 288
 Sadar Khas Mahal see Darjiling Khas Mahal
 Sadar Subdivision see Darjiling Subdivision
 Salbari, 179, 183
 Sal plantations, 197
 Sales, emponia, 251
 Salesian College at Sonada, 515
 Samabong (Kalbong) Estates, 387, 388, 390, 394
 Samtem Choaling monastery, 602
 Sanatorium, 452, 562-63, 603, 608
 Sanctuaries, 67-8, 604
 Sandakphu, 20, 614-15 ; meaning of, 614
 Sandhani Mahila Samity, 588-89

Santals, 116, 124, 490, 491
 Sarkar, Hemlata, Daughter of Pandit Sivanath Sastri, 602
 Saraswati, animal sacrifices to the goddess, 123
 Sarkis, 130
 Scheduled Castes, 128-31, 380, 426, 458, 459, 491, 516, 565, 583, 591 ; educational attainments of, 494
 Scheduled Tribes, 131-34, 380, 426, 458, 459, 491, 516, 539, 565, 571 ; educational attainment of, 494 ; Students, 595-96
 Scheduled Castes and Scheduled Tribes, agricultural labourers among, 594 ; educational attainments of, 494 ; Government assistance to, 592-94 ; literates among, 594-95 ; total number of, 594 ; Welfare measures, introduced for the benefit of, 597

School Health Clinics/Units, 555, 561

Schools :

Primary, 454, 455, 480, 483, 484, 486, 495, 496, 497, 498, 499, 518, 537, 538, 539, 540, 583, 585, 588, 602, 606, 609, 611, 613, 617, 618 ; (elementary), 474, 477, 478 ; Junior basic, 455, 497, 498, 499, 540, 588, 606 ; (night), 524-25, 537 ; (pre-basic nursery), 499, 540, 588 ; Senior Basic, 501, 502, 588, 606, 609 ; Junior High, 454, 478, 485, 500, 501, 502, 538, 540, 586, 602, 606 ; Middle English, 480, 481, 483, 484, 486, 495, 496, 500, 501, 538 ; Model Anglo-Vernacular, 481 ; Music, 537, 584 ; High/Higher Secondary, 475-78, 481-83, 484, 485, 486, 496, 500, 503-04, 505, 505-11, 527, 539, 583, 585, 588, 602, 606, 611, 616, 618 ; Girls', 454, 475, 476, 481, 482, 483, 495, 500, 501, 506, 507, 508, 509, 510, 518, 520, 540, 588, 606, 616 ; Government, 476, 480, 481, 505, 509, 511 ;
 Schools, European, 474-79, 483, 484, 499, 500, 513, 518
 Schools: Basic training, 588 ; Crafts, 483, 586, 606 ; Craft Teachers' Training, 537 ; Industrial, 245-46, 519, 520 ; Music, 584 ; Teachers' Training, 483-84 ; Technical, 584, 518, 519

Schools, aided by Government, 496, 498, 500, 505, 511 ; by Indian Tea Association, 496 ; by Municipalities, 497 ; Unaided, 497, 498, 502, 505, 511

Scottish Universities Mission Institute, 482, 486, 503, 507, 518, 519, 586
 Scottish Universities Mission Training school, 518, 519 ; College, 514
 Sculptures, 534
 Seed distribution, 180-81
 Seed Farms, 179-80 ; District, 183
 Seed Multiplication-cum-Fodder Demonstration Farm, 185
 Seed Multiplication (sericulture) Stations, 249

- Senchal, 7, 292, 464, 604 ; Game sanctuary at, 67
 Sericulture, 248-50 ; Nursery, 612 ; training centres, 249, 257
 Separation of judiciary, 426
 Settlement Charge Officer, 380
 Sen-ratio, 113
Shariyati laws of succession, 140
 Sheep rearing, 186
 Sherpa Buddhist Association, 589
 Sherpas, 117, 133; meaning of, 133
 Shiri Khola, the, 9, 10
 Shops and establishments, 380
 Sikkim, 93, 536, 543, 585 ; Raja of, 92, 94, 98, 362, 387 ; trade relations with, 271, 272-73, 277
 Siliguri, 87, 187, 255, 261, 278, 285, 287, 309, 310, 313, 355, 377, 411, 412, 499, 528, 529, 530, 532, 552, 561 ; Government Veterinary Hospital at, 188 ; Industrial Training Institute at, 250 ; Radio Station at, 335 ; transferred to Darjiling, 94
 —Subdivision, 112, 121, 183, 349, 368, 402, 403, 406-07, 488, 527 ; area of, 96, 98 ; creation of, 95 ; population of, 96, 98, 106, 107, 113, 114
 —Town, 111, 112, 115, 487, 498, 524, 525, 526, 615-17
 Siliguri Boys' High School, 483, 503, 508
 Siliguri College, 516-17
 Siliguri-Darjiling railway, opened, 105
 Siliguri Industrial zone, 244
 Siliguri Local Board, 300, 311, 312
 Siliguri Municipality, 449, 450, 451, 452, 454, 455, 456, 467, 468
 Siliguri Planning Organisation, 261, 385, 451, 453, 454, 616
 Siliguri Sports Association, 527, 589, 590, 591
 Siliguri Union Board, 551
 Silver imported from China, 275
 Silviculture, 199-200
 Silviculturist, 376
 Singla Bazar, 617
 Singtam, 452
 Slaughter houses, 451
 Slums, 450
 Snakes, 77-8
 Social Education Centres, 524, 525-26
 Social Education Officer, 380-81
 Social laws and customs of inheritance, 138-40
 Social service Organisations, Voluntary (see also Associations, literary and cultural), 583-91
 Soil, conservation of, 375-76 ; erosion of, 162-63 ; (researches on), 205-07 ; formation of, 35
 Soils, 167-68
 Sonada, 277, 282, 515, 617 ; origin of the name of, 617
 Soreng, 618
 Sports, 527
 Springs, 19-20, 566 ; Mineral, 20
 Sri Ramakrishna B. T. College, Darjiling, 519, St. Alphonsus M. E. School, Kurseong, 481, 503, 508
 St. Andrew's Colonial Homes see Graham's Homes
 St. Helen's College, Kurseong, 515-16
 St. Helen's Girls' High School and Convent, 476-77, 500, 502, 504, 510, 521, 608
 St. John Ambulance, 207
 St. John's Diocessan Girls' School see St. Michael's School
 St. Joseph's College, North Point, 476, 503, 504, 513-14 ; Previously a school, 503
 St. Joseph's Convent, Kalimpong, 478, 500, 502, 504, 510
 St. Joseph's School, Darjiling, 510, 521
 St. Michael's School, Darjiling, 476, 500, 504
 St. Paul's College, Darjiling, 475, 512-13
 St. Paul's School, Darjiling, 475, 478, 500, 502, 504, 510, 534
 St. Robert's H. E. School, Darjiling, 504, 508
 Stadium, 527
 Start, Rev. W., 125, 479
 State Assistance in legal proceeding, 426
 State Bank of India, 269, 385
 State Potato Seed Multiplication Farm, 176
 Students, enrolled, 485, 501, 505, 506, 511, 512, 519, 520, 595-96
 Sub-Jails, 426, 427, 439-40, 442
 Sukhiapokhri, 185, 187 ; 272, 277, 282, 285, 287, 411, 412, 483, 498, 524, 525, 526, 528, 529, 532 ; account of, 618 ; area of, 98 ; population of, 98, 107
 Sukna, 205, 291
 Sunday Schools, 523
 Suspension bridge, 598, 618

T

- Tagore, Rabindranath at Mangpu, 611
 Takdah, 187, 292, 619
 Tanglu, 619
Tan-gyur, 474
Tanka/Thanka, 250, 590
 Tea, condition of growing quality, 233-34 ; cultivation of, 106, 229, 230-32 ; experimental cultivation of, 93 ; export of, 279 ; manufacture of, 232-33 ; production of, 235
 Tea estates/gardens/plantations, 99, 105-06, 228, 230, 232, 233, 279, 309, 388, 398, 403, 404, 407-08, 496
 Tea industry, 227-30 ; facilities for labourers of, 235 ; growth of population and the, 100-01 ; labour condition and wages of, 234 ;
 Tea plantation, introduction of, 99, 227, 388
 Tea plantation industry, 99-100, 350
 Tea Association, Indian, 496
 Tea Garden Advisory Committee, 400, 406
 Teachers' Training College, 477

Teak plantations, 197, 198-99, 201-02
 Telegraph Offices, 333
 Telephone exchange, 334, 606, 619
 Telephones, 334-35
 Temperature, 84, 89
 Temples, Hindu, 602
 Terai, the, 4-5, 161, 222, 228, 232, 233, 350, 388, 396, 403, 543, 544, 506; annexation of, 94; Home of Fever, 545; became a subdivision, 94; origin of the name of the, 4; soils of, 4, 167, 169-70
 Terai Khas Mahals, the, 396-97
 Terai Subdivision, 94, 95
 Teschu Offering Association of Kalimpong, 589
Thanas see police stations
 Tibet, trade relations with, 271, 274-75
 Tibetan (language), 517, 601
 Tibetan Freedom, the only daily of the district, 582
 Tibetan monastery/monasteries, 601, 617
 Tibetan refugees, 111-12, 539, 540, 589, 590, 601, 617
 Tibetan Refugees' Self-Help Centre, 250, 261, 540-41, 589-90, 601-02, 607
 Tibetan seriph, 472
 Tibetans, 109, 117, 121; traditional dress of, 153
 Tiger Hill, 7, 292, 604-05
 Tigers, Usseni, presented by N. S. Khrushchev, 536, 600
 Tile-making Training Centre, 257
 Tindharia, 187, 618
 Tista, the, 8, 15-6, 19, 38, 258, 259, 289, 292, 608, 618; tributaries of, 16
 Tista Bazar, 273, 618
 Tista Bridge, 293, 523
Tista Buri/Mai (Tista river goddess), 137, 598
 Tista Valley Project, 167
 Tistaliya treaty of, 1817, 92
Tols, 522
 Tourist facilities, 327-30
 Tourist Office, Regional, 381
 Tourist resorts, 605, 612, 615
 Town (Darjiling) Khas Mahal, 390-92
 Trade, 268, 275, 282; Centres, 277, 604, 605, 613; exports and imports of, 271, 272, 273, 274, 275-79; fair, 606-07; routes, 294, 606
 Training centres, 249, 256, 257
 Training-cum-Production for Wood Industries, 255, 260
 Training in nurses and midwifery, 562, 563
 Training School at Kalimpong, 480
 Transfer of lands, restricted, 400, 401
 Transport, 314-16
 Treatment, traditional system of, 543-44
 Trekking, 329, 609
 Tribal Welfare Department, 426, 565, 591, 592
 Tribeni see Beni
 Tripai, 249
 Tumlong treaty of, 1861, 289
 Tung, 254, 292, 377, 530, 609; Industrial Training Institute at, 254-55, 609
 Tung cultivation, 240, 241-42
 Turnbull High School for Boys, 483, 586

U

Under-rayat/rayats, 395, 401, 402, 403
 Union Board, 449, 556
 Union Committee, 448
 University Employment Information and Guideline Bureau, 355
 University of Calcutta, 475, 478, 479, 481, 482, 502, 505, 512, 513, 514, 515, 516
 University of Dacca, 513
 University of North Bengal see North Bengal University
 Ussuri tigers, 536, 600
 Utensils, 151-52

V

Vaccinations, 453, 552, 566-67
 Vegetables, 155, 174, 178, 271, 272, 273, 274, 275, 277, 278
 Vegetation, 49-54
 Vehicles see conveyances
 Veterinary hospitals and dispensaries, 187-88, 606
 Veterinary Officer, District, 381
 Victoria Boys' School, Dow Hill, 476, 500, 504, 510, 518, 521, 608; Intermediate classes held in, 514
 Victoria Hospital (serving as District Hospital), 557, 603
 Victoria Memorial at Kalimpong, 607
 Victoria Park, Darjiling, 600
 Vidhan Parishad see Legislatures (State and Union)
 Vidhan Sabha see Legislatures (State and Union)
 Vivekananda Club, Siliguri, 590
 Vital statistics, Collection of, 551
 Vocational education see Education, technical
 Vocational training, 482, 540

W

Wages, 264, 348, 353; of agricultural labourers, 348-50; of Cinchona labourers, 353; of industrial labourers, 351-52; of tea plantation labourers, 350-51
 Water resources, 259
 Water-Supply, 258, 453-54, 464, 603, 604, 606
 Water-Supply schemes, 379, 454, 457, 566
 Weaving, handloom, 246-47; traditional, 151
 Weights and Measures, 282; Assistant Controller of, 382
 Welfare programmes, 359-60
 Welfare of Scheduled Castes and Scheduled Tribes, 380, 591, 592, 593
 West Bengal Council of Higher Education, 506
 West Bengal Forest School, 207-08, 376
 West Bengal Official Language Act of 1961, 486

West Bengal Panchayat Act of 1973, 466
 West Bengal State Electricity Board, 223,
 386, 452, 614
 Widow remarriage, 144, 146
 Wild Life, preservation of, 66-8
 Wild Life sanctuaries, 67-8, 604
 Winds, 85-6, 90
 Women, dress of, 152, 153, 154; ornaments
 of, 154, 155
 Wool and Cotton weaving Centre at Darjiling,
 257
 Wool-dyeing and wool-weaving, training
 courses introduced in, 520; School, 520
 Wools, imported from Tibet, 274
 Workers, 100, 101, 343, 344

Y

Young Men's Association of Siliguri, 590-91
 Youth clubs, 586
 Youth Hostels, 613, 614, 619
 Youth Welfare, 378, 527

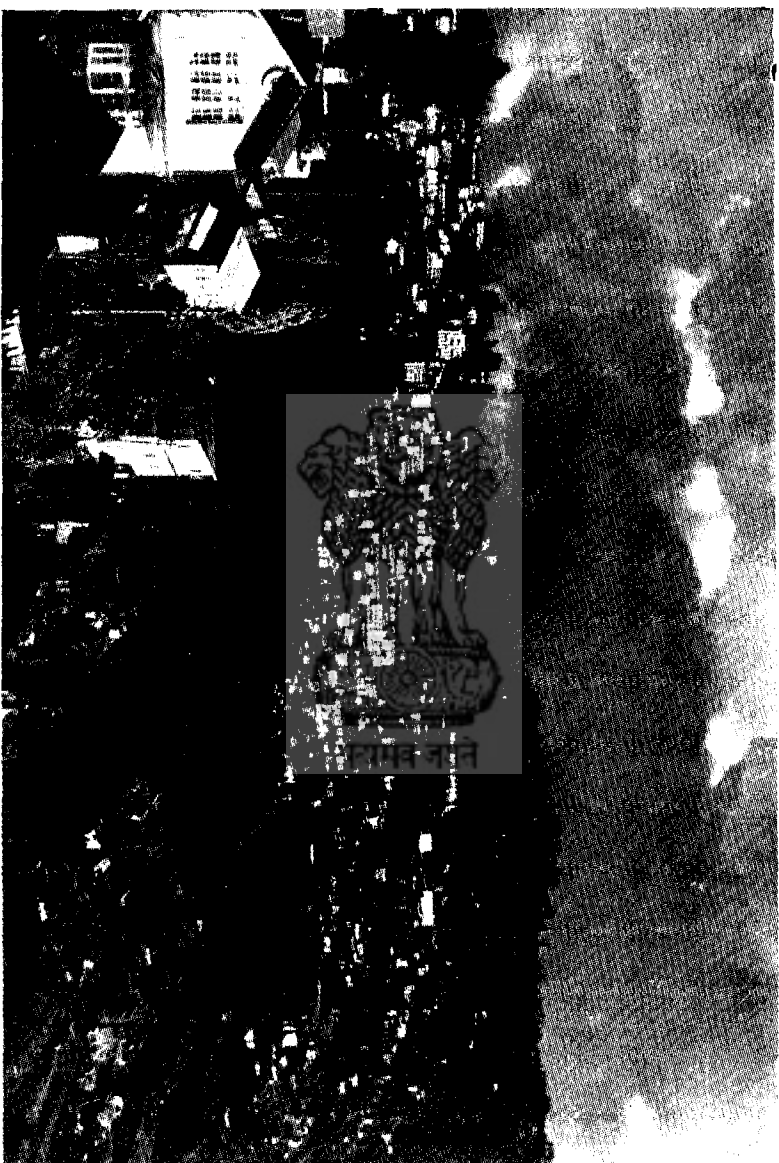
Z

Zang Dog Palri Institute of Tibetology, 589
 Zilla Parishad (see also District Board), 298,
 366, 457, 466, 524, 565
 Zilla School, Darjiling, 480, 481, 500, 503,
 507
 Zoological Park, Himalayan, 536, 600





1. Kanchanjunga seen from Tiger Hill



2. A view of Darjiling Town



3. The Tista River



4. The Orchid House, Lloyd Botanic Garden, Darjiling



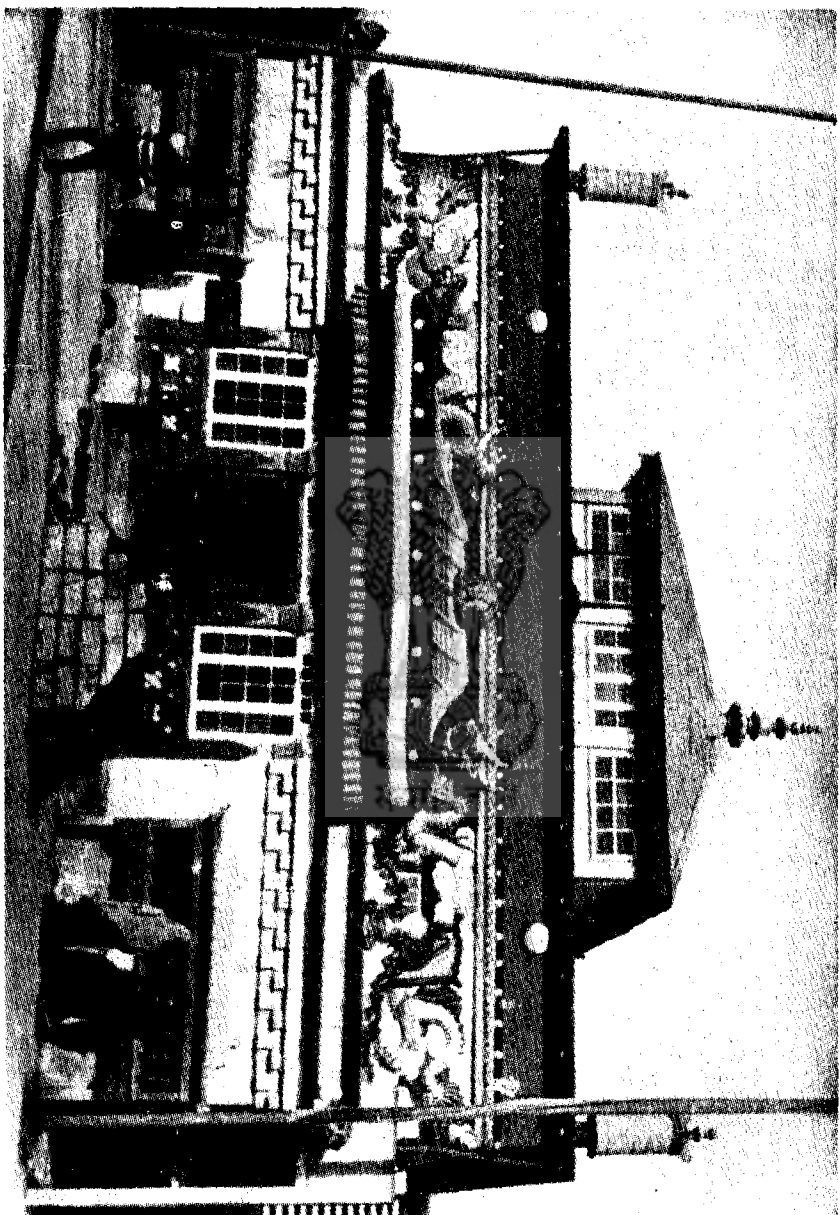
5. A Bhutia Priest



6. A Bhutia mask-dancer



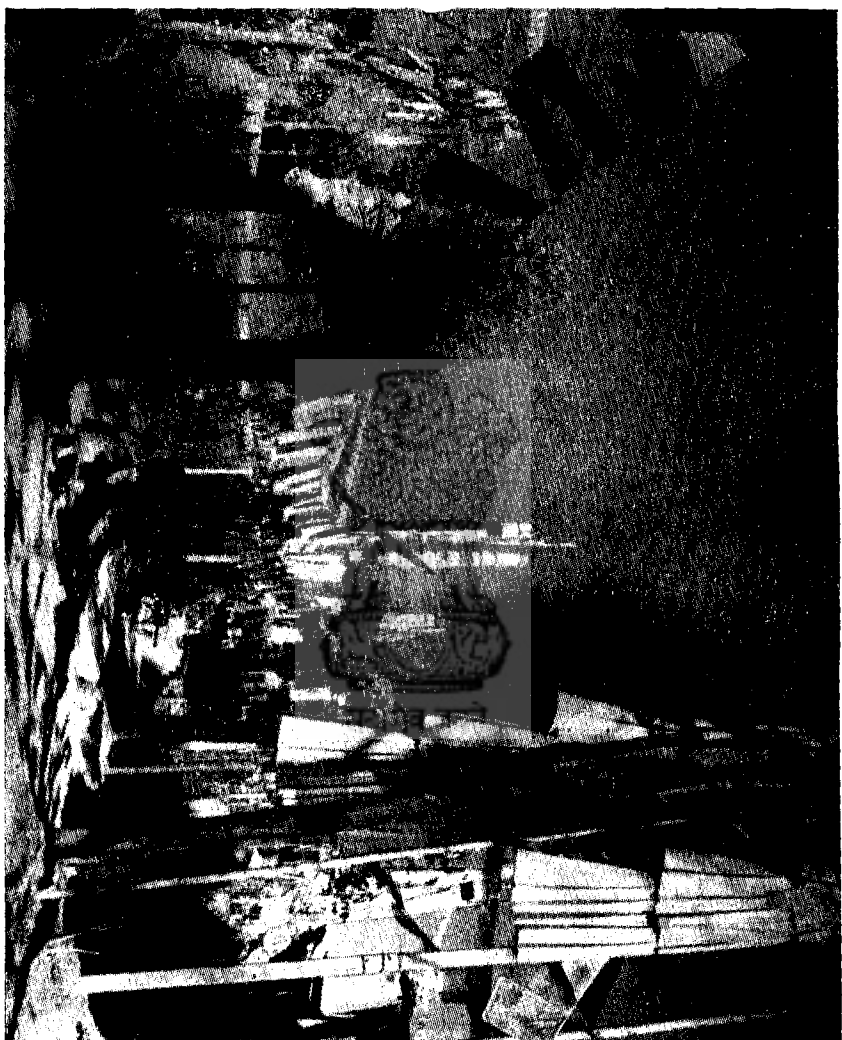
7. A Bhutia woman with ornaments



8. A Buddhist monastery



9. Ramkrishna Vedanta Ashrama, Darjiling



10. Way to Mahakal Temple, Darjiling



11. Farming at Kalimpong



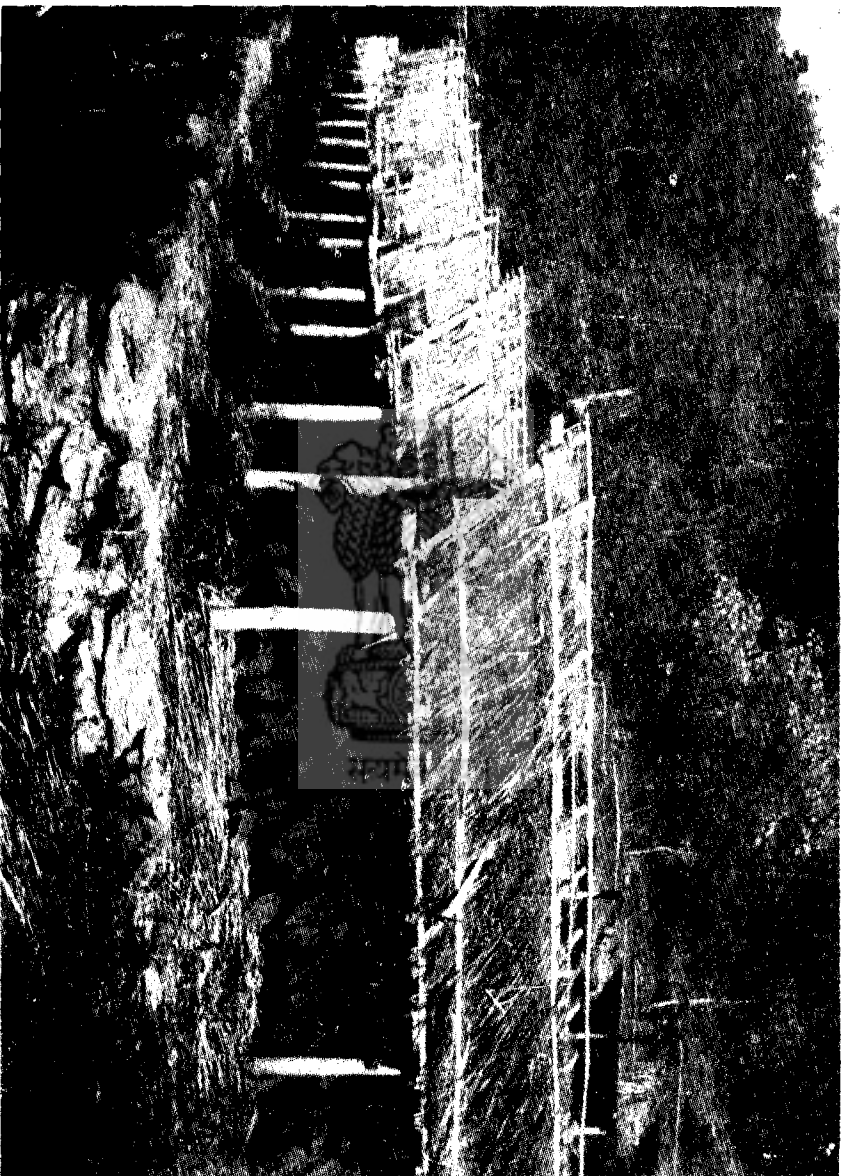
12. Cinchona bark harvesting



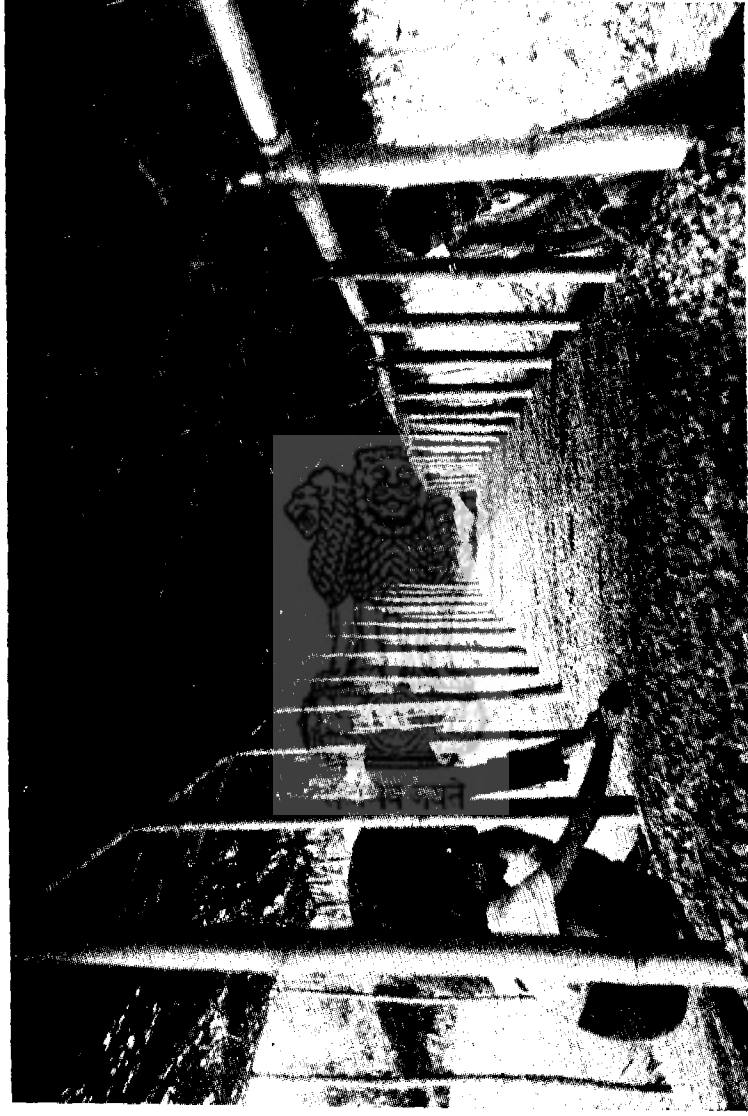
13. Government Saw Mill, Siliguri



14. Industrial Profile of Siliguri Town



15. Cinchona Nursery Shed



16. Cinchona Nursery Shed



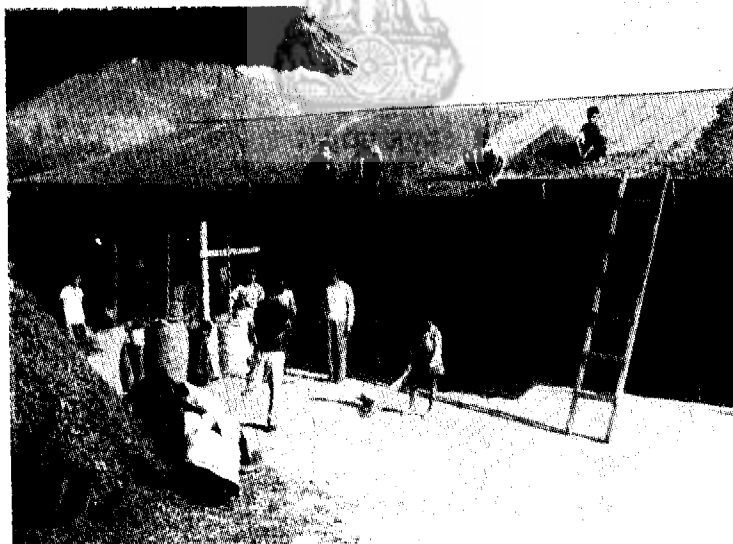
17. Tea Plantation



18. A Lepcha Woman Weaver



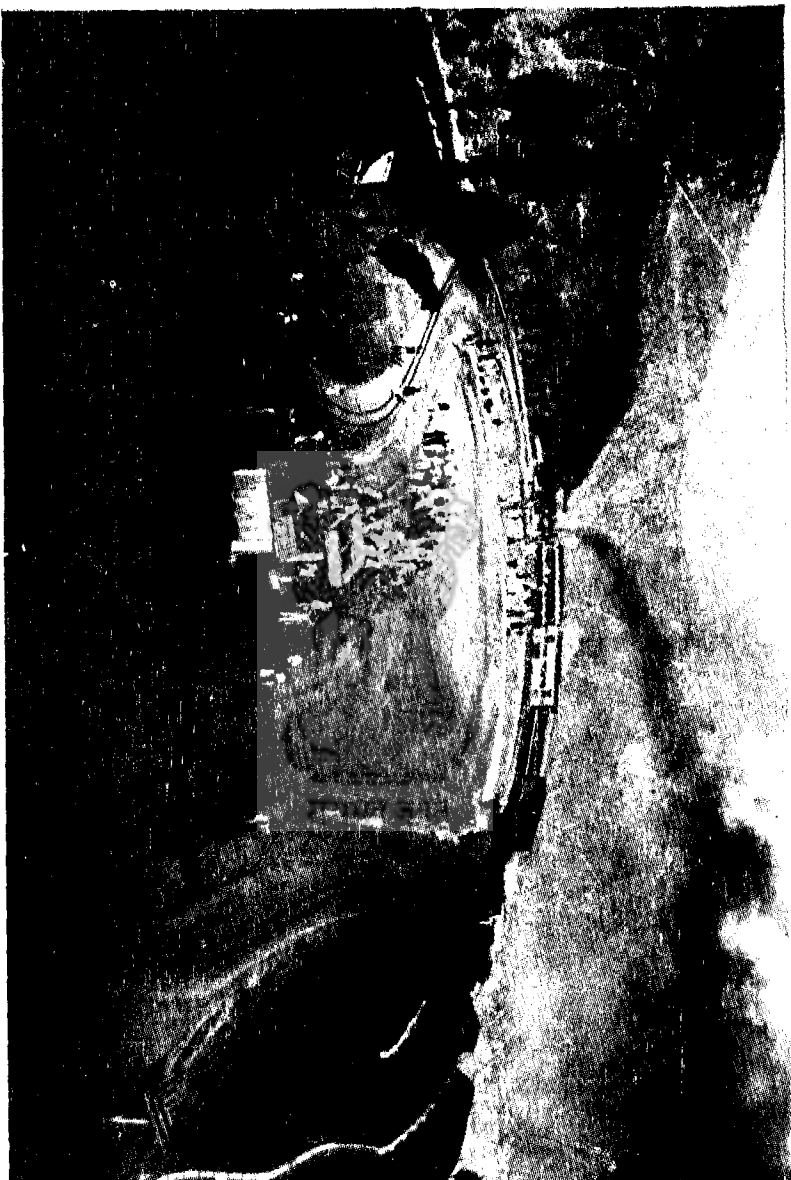
19. Tibetan Refugee Self-Help Centre, Darjiling



20. Cinchona Bark Drying



21. Darjiling Daily Market



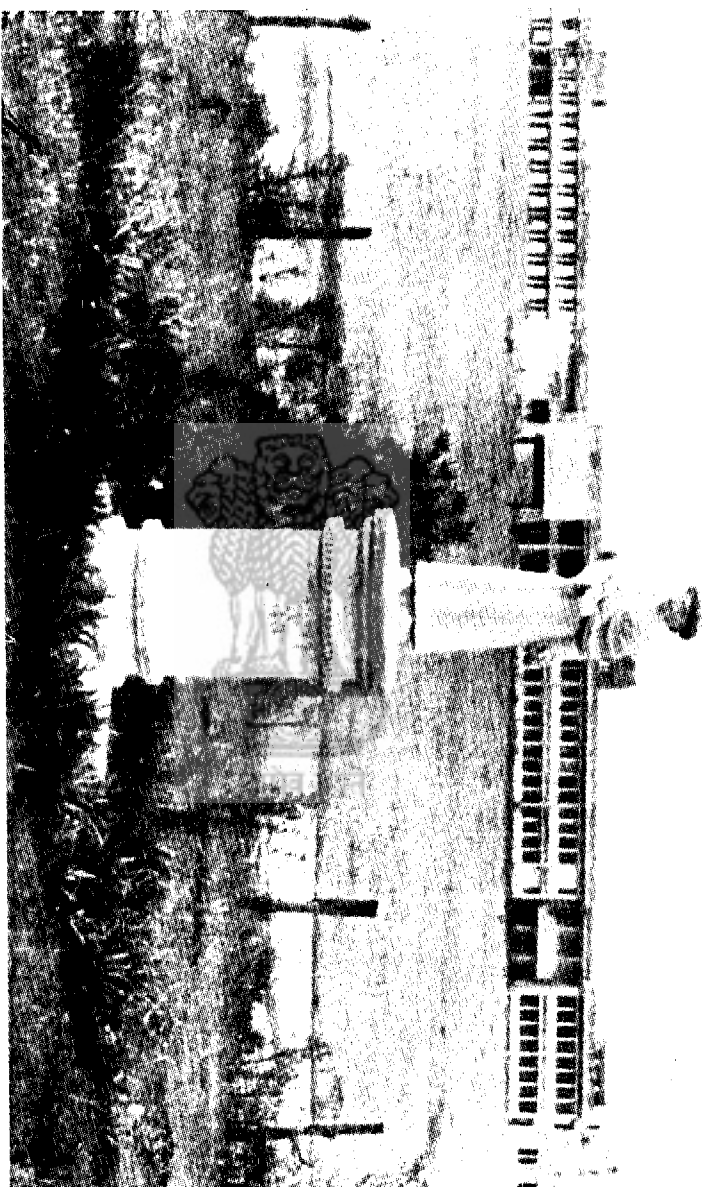
22. Batasia Loop



23. Dowhill School, Kurseong



24. Municipal Hall, Darjiling



25. North Bengal University, Raja Rammohanpur



26. Kalimpong Town



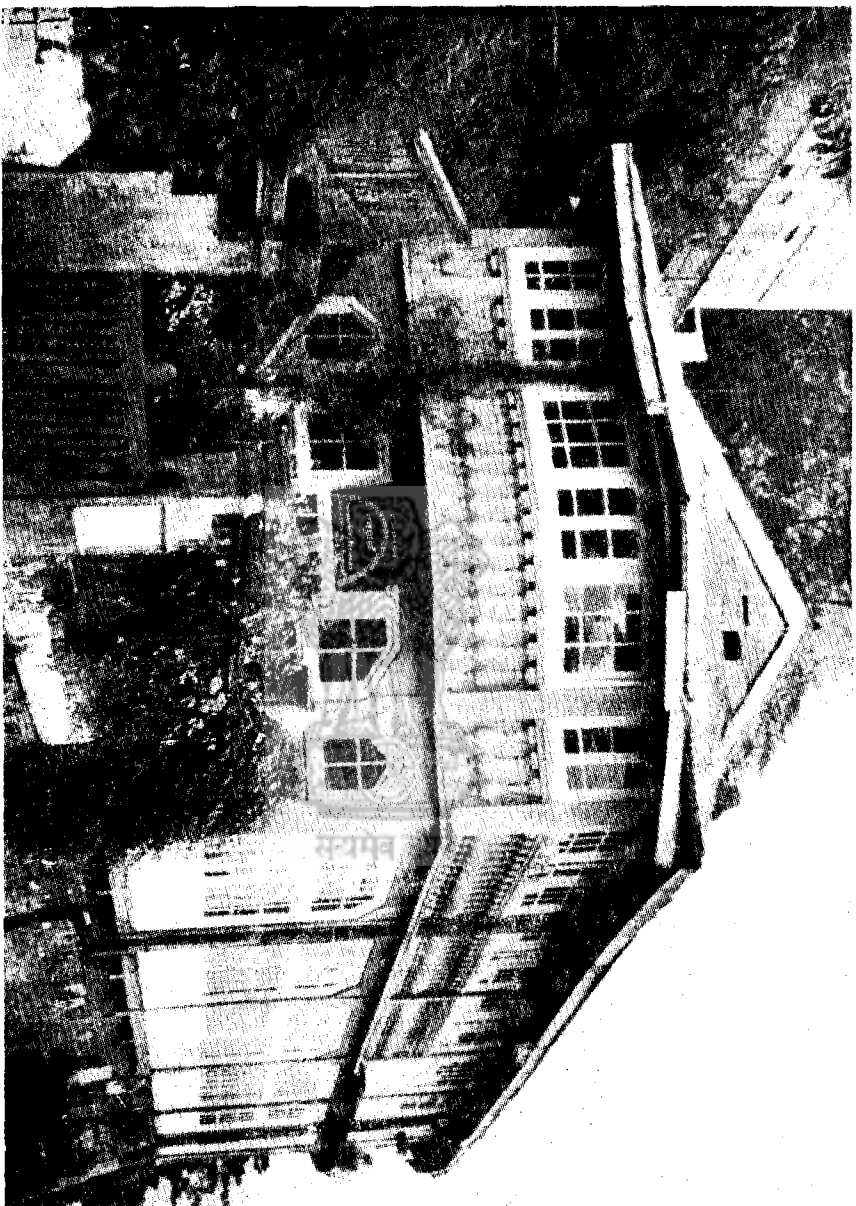
27. Governor's House, Darjiling



28. The Mall, Darjiling



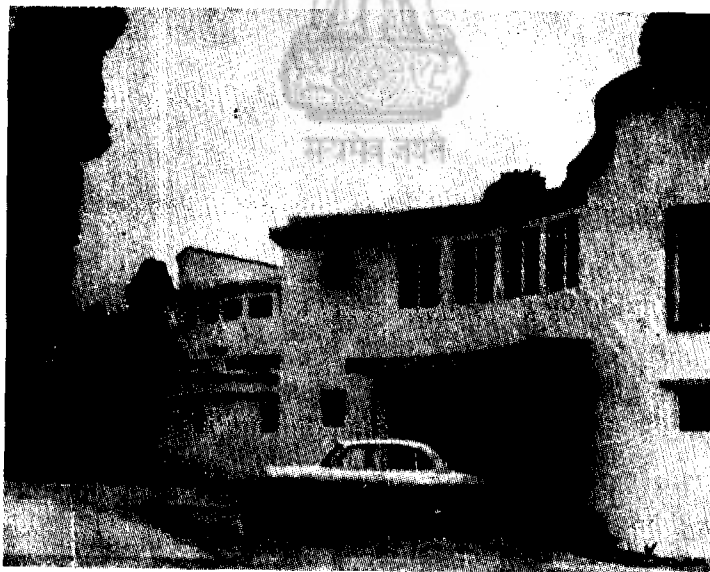
29. A View of Darjiling Town



30. 'Step Aside', Darling, where Deshbandhu C. R. Das breathed his last



31. Kanchenjunga



32. Tourist Lodge, Darjiling